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Toolkit Development for a Community-Based Palliative Care Program

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Toolkit Development for a Community-Based Palliative Care Program

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Abstract

The quality of care in the U.S. at the end of life is poor, yet comes with a high price. Since the Institute of Medicine's (IOM) report *Approaching Death* in 1997, inpatient palliative care programs in hospitals with 50 beds or more have grown by 165%. In 2015, the IOM had a follow up report, *Dying in America* that indicates the need for community-based palliative care programs to increase access of care for individuals who are homebound or live in rural communities. In January 2016, the Centers for Medicare and Medicaid Services (CMS) initiated the Medicare Care Choices Model (MCCM) to provide community-based palliative care services to Medicare beneficiaries. A Midwest health system with a hospice and palliative care division has been one of the organizations participating in cohort one. Since initiation in January 2016 through December 2016, 15.93% of patient referred by primary care providers and specialists were admitted to the program and 14.29% were directly admitted to hospice. Therefore, approximately 69.78% of patient referred to MCCM do not qualify or receive supportive, palliative care services within this organization. The development and implementation of a sustainable and feasible evidence-based community-based palliative care (CBPC) program could bridge the gap in care within this organization. Utilizing the Theory of Symptom Management and the Promoting Action on Research Implementation in Health Services (PARIHS) Framework, a toolkit for the development and implementation of a CBPC program for individuals who do not qualify for MCCM was created. This toolkit includes the care model with correlating budgets, pre-post cost-savings analysis, implementation timeline, evaluation tools, and sustainability plan.

Executive Summary

The quality of care in the U.S. at the end of life is poor, yet comes with a high price. Since the Institute of Medicine's (IOM) report *Approaching Death* in 1997, inpatient palliative care programs in hospitals with 50 beds or more have grown by 165%. In 2015, the IOM had a follow up report, *Dying in America* that indicates the need for community-based palliative care programs to increase access of care for individuals who are homebound or live in rural communities.

In response to this recommendation and high costs of care, the Centers for Medicare and Medicaid Services (CMS) initiated the Medicare Care Choices Model (MCCM). MCCM provides hospice-like supportive services to individuals with a terminal prognosis of 6 months or less, who can choose to concurrently receive curative measures for their life limiting illness (CMS, 2017). A Midwest health care system with a hospice and palliative care division has been participating in cohort one of the MCCM program. Since the initiation of the MCCM program in this organization in January 2016 through December 2016, 15.93% of patient referred by primary care providers and specialists were admitted to MCCM and 14.29% were directly admitted to hospice. Therefore, approximately 69.78% of patient referred to MCCM do not qualify or receive supportive, palliative care services within this Midwest health care system. Due to this gap in care delivery, a toolkit for a community-based palliative care (CBPC) program that is feasible and sustainable within this organization was created.

The toolkit created includes a pre-post cost-savings analysis of the MCCM program, a care team with correlating budgets, implementation timeline, evaluation tools, and sustainability plan. The sample included patients admitted to the MCCM program within the Midwest health care system that had either died or discharged. Due to the small sample size, n=28, a pre-post

cost-savings analysis was performed. The overall average cost-savings per patient was \$1,220.34 for Medicare and \$1,686.83 for private insurers. A paired two-tailed t-test was performed to determine statistical significance. A p-value of less than or equal to 0.05 indicated statistical significance. The overall p-value was 0.61, indicating no statistical significance in cost savings per day. The data was also analyzed by diagnosis of cancer, congestive heart failure (CHF), and chronic obstructive pulmonary disease (COPD) to determine if a statistical significance of cost per day existed between diagnoses. No statistical significance was found, however CHF was close to being statistically significant with a p-value of 0.065.

A budget for the initial pilot of a new innovative program to address the identified gaps in palliative care delivery is included in the toolkit. The revenue was based on a 100-visit analysis performed by a financial analyst within the Midwest health system hospice and palliative care division. An initial pilot will aim to include 25 patients, which would be approximately 50 visits per month. The care team is provider based with a 0.1 full-time equivalent (FTE) physician, 0.4 FTE nurse practitioner, 0.1 FTE coordinator, 0.1 FTE skilled nurse, and 0.1 FTE social worker. Two budgets were created, one without the indirect cost and one including the indirect cost. The indirect costs of a CBPC program include items such as driving expenses, office space, and supplies. Typically within this Midwest health system, the indirect cost is not added for pilot programs, however is beneficial in tracking for when the pilot will become a formal program within the organization.

An evaluation plan tracking patient information, program and patient utilization, processes, visit standardization, and symptom improvement is included in the toolkit. A spreadsheet was created that correlates with the data points to be collected. An evaluation plan

with timeline and suggested program modifications for the initial CBPC program pilot is included in the toolkit.

A sustainability plan modified from recommendations and actions by Bull et al. (2012) is included in the final CBPC program toolkit. The major components of the sustainability plan include: standardizing palliative care visits, standardizing data collection and analysis, program growth, expanding work force, creating a culture of accountability, using time efficiently, and accurately coding and billing services. Additional resources were created for the toolkit to impact sustainability. These include visit standardization guidelines, interdisciplinary team collaboration guidelines, billing and coding references for providers, and health care team educational materials on communication strategies.

A feasible and sustainable toolkit for the development and implementation of a CBPC program within the identified Midwest healthcare system was created. Current clinical practice, existing programs such as MCCM, and evidence in the literature was used to create an evidence-based toolkit. The recommendation is for the hospice and palliative care division within this Midwest healthcare system to utilize this toolkit to implement an initial program pilot.

Toolkit Development for a Community-Based Palliative Care Program

The United States has an increasing number of aging individuals with complex comorbid conditions, chronic or life limiting illnesses, neurologic degenerative diseases, cancers, and frail states (Institute of Medicine [IOM], 2014). The poor quality of care provided for these patients was first addressed in the IOM (1997) report *Approaching Death*. The IOM (2015) published an update on the care provided at the end of life in the report *Dying in America*. Palliative care programs were expanded to improve the quality of care at the end of life. Palliative care is an approach to care that improves the quality of life of patients and their families who are facing problems associated with life limiting illness. This is achieved through the prevention and relief of suffering through early identification, assessment, and treatment of pain and physical symptoms, as well psychosocial and spiritual aspects of care (World Health Organization [WHO], 2016). Since the 1997 IOM report, palliative care has significantly grown with a 165% increase in hospital-based palliative care programs in hospitals with 50 beds or more (Center to Advance Palliative Care [CAPC], 2015). Although the number of hospital-based programs has increased, community-based programs have not grown as significantly. Individuals in rural communities and those who are homebound due to life limiting illnesses still do not have adequate access to palliative care (IOM, 2015). The IOM recommendation in the 2015 report is to transform care delivery models in palliative care to provide care in the community. These community-based palliative care (CBPC) programs should be patient and family centered, built on evidence-based practice, and cost-effective (IOM, 2015).

The purpose and outcomes of community-based palliative care programs align with the national initiative of the Quadruple Aim. This initiative was previously called the Triple Aim, however a new goal of improving staff satisfaction was added. The four goals of the Quadruple

Aim include: improve individual experience of care and patient satisfaction, improve the health of populations, reduce the cost per person of populations, and improve the work life of health care professionals (Bodenheimer & Sinsky, 2014). The cost of care for populations of individuals with chronic and life limiting illnesses is high due to frequent utilization of the health care system. Congestive heart failure (CHF) is the most common hospital admission diagnosis of Medicare beneficiaries (Pfundner, Wier, & Stocks, 2013). Additionally, other chronic diseases are increasing in hospital admission rates. Patients with the diagnosis of acute renal failure had a 264% rate increase in hospitalizations from 1997 to 2010 (Pfundner, Wier, & Stocks, 2013). Participation in a CBPC program improves patient and family satisfaction with care, improves quality of life, and decreases cost of care for individuals with life-limiting illness by hospital encounter aversion (Brumley et al., 2007; Bakitas et al, 2009). Patients participating in CBPC programs experience improved quality of and decreased cost of end of life care. In addition, care team members can potentially experience an improved work life due to process standardization, interdisciplinary meetings, and use of administrative staff to perform clerical to increase the job satisfaction of care providers (Bodenheimer & Sinsky, 2014).

Problem Statement

Individuals with life limiting illness receive poor quality of care at a high cost to the health care system. Currently, 60% of all deaths in the U.S occur in the hospital when researchers have determined the majority of people, 52-92%, want to die at home (Brumley et al., 2007; Gomes, Calanzani, Gysels, Hall, & Higginson, 2013). Additionally, according to the Centers for Medicare and Medicaid Services ([CMS], 2015) policy, individuals qualify for hospice when the terminal prognosis is six months or less. The current median length of stay (LOS) on hospice is 17.4 days, with a large percentage of 35.5% dying or being discharged from

hospice within seven days or less (National Hospice and Palliative Care Organization [NHPCO], 2015). Another quality indicator of care for individuals with life limiting illness is the completion of advance care planning (ACP). Patients can experience autonomy at the end of life by predetermining the care he or she would want to receive if they were unable to make decisions. Advance care planning includes aspects such as decisions on life-sustaining treatments, resuscitation attempt status, an advance directive, and designation of a durable power of attorney of health care. However, ACP is completed by less than 30% of individuals, with lack of awareness being the major reason for not having an advance directive (Steele & Davies, 2015; Brikmann, 2013). Furthermore, the cost of health care at the end of life is high. The sickest 5% of the U.S. population consumes over half of all health care expenditures, with the majority of those individuals having chronic or life limiting illnesses (Kerr et al., 2014). Additionally, 25% of annual Medicare expenditures are attributed to beneficiaries in their last year of life (Riley & Lubitz, 2010). Innovative interventions must be implemented to accomplish high-value care for individuals with life limiting illnesses at the end of life.

One of these innovative interventions by CMS is the Medicare Care Choices Model (MCCM). This program provides hospice-like support for Medicare beneficiaries who have a prognosis of six months or less (CMS, 2017). The goals of MCCM are to increase patient satisfaction and quality of life, improve access to quality care, and reduce Medicare expenditures. MCCM was initiated in 2016 with the first cohort, and a second cohort will begin participating in 2018. The first cohort consists of 141 participating hospices across the United States (CMS, 2017). In order to be included in the MCCM program, the organization must have a hospice division. One of the organizations in the first cohort is a Midwest healthcare system that has a hospice and palliative care division.

This organization is one of the largest health care systems in the Midwest. The health care system includes a hospital group serving in 12 hospitals, a medical group with 181 ambulatory clinics, and an insurance company with 654,000 members. The hospice and palliative care division of this organization offers hospice services inpatient and outpatient in homes, while palliative care services are only offered inpatient and in a few specialty clinics. Therefore, the organization identified a need to provide palliative care services in the community and in patient homes. MCCM was initiated within this organization with the intent to fill this care delivery need. However, from the initiation of the pilot in January 2016 through December 2016, only 15.93% of patient referrals from specialists and primary care providers were admitted to the MCCM program. An additional 14.29% of the referred patients were admitted directly to hospice. Therefore, 69.78% of the 182 patients referred to MCCM did not qualify for the program or declined services. Since a large percentage of patients referred to this Midwest organization are still unable to receive quality, home-based palliative care services through MCCM, what is an evidence-based CBPC program that is feasible and sustainable within this organization? Reviewing the available literature on CBPC programs as well as analyzing current programs in practice such as MCCM will inform the development of a new evidence-based CBPC program.

Evidence-Based Initiative

The current evidence for the initiation of a CBPC program will be reviewed related to a variety of aspects. First, the current evidence-based guidelines for palliative care will be determined. Second, the inclusion criteria, care models, and outcomes of CBPC programs in the literature will be discussed. Finally, the evidence-based guidelines for the formation of a CBPC program by the Center to Advance Palliative Care (CAPC) will be described.

Palliative Care Guidelines

The National Consensus Project (NCP) for Quality Palliative Care (2013) has created practice guidelines to improve the quality of palliative care delivered in the U.S., standardize palliative care practice, and promote continuity of palliative care across care settings. The NCP guidelines support the collaboration of palliative care services amongst hospitals, outpatient clinics, community settings, and patient homes to guarantee quality and access to palliative care services for patients with life limiting illnesses. The NCP guidelines can be broadly understood in eight domains:

1. Structure and Processes of Care
2. Physical Aspects of Care
3. Psychological and Psychiatric Aspects
4. Social Aspects of Care
5. Spiritual, Religious, and Existential Aspects of Care
6. Cultural Aspects of Care
7. Care of the Patient at the End of Life
8. Ethical and Legal Aspects of Care

Program Development in the Literature

Exploring the inclusion criteria and care model within the literature will inform the development of a CBPC program. Inclusion criteria define the population in which a program will serve (CAPC, 2016). Additionally, inclusion criteria standardize care and control the growth of newly implemented programs. A defined care model determines who will be included in the multidisciplinary team, as well as who will collaborate and coordinate patient care. The care model also informs the direct cost within a program budget.

Inclusion criteria. Inclusion criteria into CBPC programs vary from program to program, as well as between government funded programs and those that are supported by private payers. The literature was examined for CBPC inclusion criteria. A comparison can be made to determine similarities and difference between programs (Appendix A).

Diagnoses for inclusion into a community-based palliative care program were mostly consistent in the literature. Enguidanos, Cherin, and Brumley (2005) and Brumley et al. (2007) both included patients with chronic obstructive pulmonary disease (COPD), congestive heart failure (CHF), and cancer. A national organization in the U.S., Aspire Health (2016), and Faith Hospice (2016) in the Midwest all include individuals with illnesses such as, but not limited to, cancer, CHF, COPD, kidney failure or liver failure, Amyotrophic Lateral Sclerosis (ALS), and advanced dementia. Meyer, Kerr, & Cassel (2014) reviewed four different case studies of CBPC programs. Each of the four organizations reviewed have similarities to the identified Midwest healthcare system with a hospice and palliative care division. Inclusion criteria differed amongst these four CBPC programs. Stanford Health Care, an academic medical center that included an outpatient CBPC program in 2012, offers CBPC services to patients with cancer, blood disorders, as well as cardiac, pulmonary, and neurologic conditions. Palo Alto Medical Foundation is a multispecialty group with 1,300 physicians that initiated a CBPC program in 2013 to include patients with cancer, dementia, and organ disease. Palliative Care Center of Silicon Valley is affiliated with a hospice organization to offer CBPC for individuals with cancer, illness or symptom progression, Alzheimer's, dementia, Parkinson's, heart or pulmonary disease, liver disease, renal disease, and general decline in health status. Finally, Hoag Hospital is a non-profit hospital with multiple locations that started an outpatient or CBPC program in

2013. The Hoag program does not have specific diagnoses for inclusion into a CBPC program; instead inclusion is based on life expectancy.

Life expectancy was consistent throughout the literature for inclusion into a community-based palliative care program. Enguidanos, Cherin, and Brumley (2005), Brumley et al. (2007), and Meyer, Kerr, & Cassel (2014) included individuals with a prognosis, or life expectancy, of 12 months or less into the CBPC program. Enguidanos, Cherin, and Brumley (2005) and Brumley et al. (2007) used the Palliative Performance Scale (PPS) to determine severity of illness. Individuals with a PPS score of 70% or less qualified for home-based palliative care. The PPS is modified from the Karnofsky scale, which determines an individual's performance on a scale of 0 to 100%. Death would be 0% and normal health would be 100% (Brumley et al., 2007). A score of 70% would include reduced ambulation and an inability to do normal work due to disease. A life expectancy of 12 months or less was consistent amongst the literature reviewed.

Brumley et al. (2007) examined CBPC from a narrower perspective by addressing patients who qualify for home-based palliative care. Additional inclusion criteria included a homebound status and one hospital encounter in the past year. Home-based palliative care is a form of community-based palliative care that requires additional inclusion criteria to narrow the patient population served within a CBPC program.

The Medicare Care Choices Model (MCCM) is an initiative by CMS to increase access to hospice-like supportive care to improve quality of life and care satisfaction for patients and families (CMS, 2017). MCCM inclusion criteria are more detailed than what was cited in other literature. MCCM inclusion criteria includes enrollment in Medicare parts A, B, and D, has not been enrolled in other care organizations managed by Medicare in the last two years, has specific

diagnoses identified by ICD-9 or ICD-10 coding, has had at least two hospitalizations in the last 12 months and three or more office visits correlated with the identified diagnosis, has a completed certification of terminal illness filled out by Medicare enrolled healthcare provider, has not been enrolled or elected for Medicare or Medicaid hospice benefits in the last 30 days, lives in a traditional home for 30 days before being admitted to MCCM, and has completed paperwork confirming participation (CMS, n.d.). Accepted diagnoses include COPD, CHF, terminal cancers, or human-immunodeficiency virus (HIV). Inclusion criterion for MCCM is continually changing based on pilot evaluation and feedback.

Care models. A care model describes how care services will be delivered to patients and families (Agency for Clinical Innovation, 2013). The care model ensures patients are receiving quality care by utilizing appropriate interdisciplinary team members. The interdisciplinary care teams of CBPC programs have similarities and differences. Similarly, each program has healthcare professionals such as physicians, nurse practitioners, physician assistants, nurses, social workers, and chaplains working together in an interdisciplinary team to provide collaborative and coordinated care (Coyle, 2015). However, the interdisciplinary teams vary from program to program. The literature, as well as the MCCM program were explored for care team composition. Appendix B is an overview of the various interdisciplinary teams found in the literature.

The physician and registered nurse (RN) are the two most common and consistent members of a palliative care program, with other health care professionals being integrated based on patient need (Coyle, 2015). Brumley et al. (2007) and Enguidana, Cherin, and Brumley (2005) both had a core team of a physician, nurse, social worker, the patient, and family. However, Brumley et al. (2007) also included a chaplain or spiritual counselor, home aide,

bereavement counselor, physical therapist, occupational therapist, speech language therapist, pharmacists, dieticians, and volunteers. Faith Hospice (2016) utilizes both physicians and nurse practitioners as palliative care providers. Other health care professionals can be added, such as physical therapists, however Faith Hospices uses members who provide billable services that are reimbursed by insurance companies. Aspire Health (2016) includes a physician, nurse practitioner, and nurse, with the addition of a social worker or chaplain based on patient need. The MCCM care team is determined by patient need. The care model includes the patient's current primary care provider or specialist, a palliative care physician, skilled nurses, medical social worker, nurse navigator or coordinator, home health aides, homemakers, and volunteers (CMS, n.d.).

Meyers, Kerr, and Cassel (2014) reviewed the care team of four different community-based palliative care programs with the inclusion of full-time equivalents (FTE) for each role. The Palliative Care Center of Silicon Valley reports 233 outpatient encounters per year with a total of 2.9 FTEs comprised of an administrator, nurse practitioner, licensed clinical social worker. Hoag hospital has 1,654 outpatient encounters with a total of 1.5 FTEs comprised of a physician, clinical nurse specialist, and clinical social worker. Palo Alto Medical Foundation reports about 832 to 1200 outpatient encounters per year with three geographically placed teams. These three programs each have 200-300 patients on service with 4.0 to 5.0 FTE of staffing. Finally, Stanford Health Care has a CBPC program that includes 1,075 outpatient encounters per year. The care team includes a total of 3.2 FTEs comprised of a physician, advance practice registered nurse (APRN), care coordinator, and licensed clinical social worker. Additionally, the Palliative Care Action Community (PCAP) performed a survey of care models and FTEs. The medians include 0.38 FTE physician, 1.0 FTE APRN or physician assistant, 3.0 FTE RN, 0.25

FTE chaplain, and 0.55 for a social worker, care manager, or care coordinator. In total, home-based palliative care programs use a median of 2.23 FTEs. Amongst these programs and surveys, the FTEs used for number of patients served are not consistent. Regarding care model and FTEs, CAPC (2016) recommends piloting assumptions of needed care members and evaluating processes, utilization, and outcomes to inform care model change.

Bull et al. (2012) reviewed the community-based palliative care program at Four Seasons in North Carolina. This large program reports approximately 13,375 visits a year to 620 patients with a provider focused care team. Physicians and advance practice registered nurses (APRN) have primarily made up the care team, with the recent addition of physician assistants (PA) to fill the shortage of palliative care providers. The staffing ratio Bull et al. (2012) found to be sustainable is a 2.25 full time APRN or PA to every one full time physician. Therefore, the current staffing model includes six PAs, four APRNs, and four full time physicians to provide services to the recipients of care in the Four Season program.

The Palliative Care Action Community performed a survey of staff composition based on setting. In 2014, ten home-based palliative care programs were surveyed. Of these ten programs, 70% had physicians, 50% APRNs, 50% RNs, 80% social worker, case manager, or care coordinator, 30% a chaplain, 0% a psychologist or licensed clinical social worker. Additionally, 90% of the programs had greater than one discipline (Meyers, Kerr, Cassel, 2014). In reviewing these results, the most common members of a CBPC care model include a physician or APRN, RN, and social worker or care manager.

Community-Based Palliative Care Outcomes

CBPC program outcomes including cost-savings, patient satisfaction, and quality of life provide significant evidence for the benefits of implementation of community-based programs.

Appendix C provides an overview of the outcomes observed in a review of the literature. Since CBPC is a relatively new concept, the literature is limited or lacking disseminated work by organizations (Meyers, Kerr, & Cassel, 2014).

Researchers from the insurance company Kaiser Permanente performed two studies to determine the outcomes of community or home-based palliative care programs. The first study, performed by Enguidanos, Cherin and Brumley (2005), was a comparison study of individuals in a home-based palliative care program, compared to those who received usual care managed by diagnoses specific specialists. The population included individuals with the diagnoses of CHF, COPD, and cancer. The researchers determined a decrease in cost for patients diagnosed with CHF, COPD, and cancer by 52%, 67%, and 35% respectively. In addition, individuals who received home-based palliative care were 21 times more likely to die at home than the comparison group. The second study performed by Brumley et al. (2007) was a randomized controlled trial between two home-based palliative care settings. The population also included individuals with diagnoses of CHF, COPD, and cancer. The researchers determined that home-based palliative care increased patient satisfaction at 30 and 90 days after admission, as increased the likelihood of dying at home. Patients on home-based palliative care also had an average decrease in cost of care by 33%.

Kerr et al. (2014) specifically analyzed the cost savings of home-based palliative care programs by conducting a prospective, observational database study to review insurance claims. The population included individuals who participated in a private insurance funded home-based palliative care program. Kerr et al. (2014) determined a cost savings at three months and two weeks prior to death. Other findings included a 45% higher entry rate into hospice and a 25-day

increase in hospice length of stay. Both of these results infer that CBPC programs improve hospice quality outcomes and patient care at the end of life.

Hui et al. (2014) performed a retrospective review of patients with advanced cancer who received palliative care services. Early palliative care referral was associated with a 20% decrease in emergency department (ED) visits and 34% decrease in hospitalizations. In addition, community-based patient referrals compared to inpatient referrals were correlated with less aggressive care at the end of life and a decrease in deaths in the hospital setting.

Blackhall et al. (2015) and Bakitas et al. (2009) both researched specific community-based palliative care intervention. The populations for both studies included individuals with advanced cancer. Blackhall et al. (2015) reviewed the Comprehensive Assessment with Rapid Evaluation and Treatment (CARE Track) program which offers outpatient palliative care services. Patients referred to the CARE Track program had a 20% decrease in hospitalizations, a 21.4% increase in patient referrals to hospice, a decrease of deaths in the hospital setting, and a decrease in health care cost in the last 3 months of life. Bakitas et al. (2009) examined an intervention entitled ENABLE, which is an APRN led, telephone-based palliative care program. Services provided included education, assessment, coaching, symptom management, advanced care planning, and crisis management. Individuals were found to have significantly ($p = 0.02$) improved quality of life and mood with this community-based palliative care intervention.

Community-based palliative care programs have a variety of significant outcomes. These outcomes include decrease in cost of care by aversion of ED visits or hospitalizations, decrease of deaths in the hospital setting, increase in patient referrals to hospice and hospice length of stay, increase in mood and quality of life, and increase in patient and family satisfaction. These

outcomes demonstrate a benefit for the inclusion of community-based palliative care programs within an organization to improve quality of end of life care and decrease cost.

Center to Advance Palliative Care Implementation Principles

The Center to Advance Palliative Care (CAPC) has identified the growing trend of CBPC programs since the 2015 IOM report. Due to the limited literature and dissemination of programs, CAPC has gathered program data to provide a guide for implementation of CBPC programs. The seven principles for implementation include:

1. Assess need by considering stakeholder priority
2. Understand the local environment including patient need, available resources, and community relationships
3. Pilot the program by starting small, monitoring the process, and evaluating outcomes
4. Ensure financial support
5. Collect program data to ensure value and quality
6. Coordinate care to produce safe transitions
7. Assure quality

The seven principles by CAPC (2016) for CBPC program development can inform the initiation of a CBPC within an organization. Aspects such as assessing the stakeholder priority and understanding the local environment provide evidence for the feasibility of a CBPC within an organization. Additionally, piloting, monitoring, collecting data, and ensuring financial support all inform the sustainability of a program. The CAPC principles were used to develop and implement a feasible and sustainable CBPC program.

Conceptual Models

Conceptual models provide direction and a scope or lens in which to understand the phenomenon of interest. The development and implementation of a feasible and sustainable evidence-based CBPC program to improve quality of care for patients with life limiting illnesses is the phenomenon of interest. Related to this phenomenon, a conceptual model can be used to describe and understand the population of patients with life-limiting illness who experience symptoms and disability due to disease. Additionally, a framework for implementation can inform the translation of evidence into clinical practice. The Theory of Symptom Management and the Promoting Action on Research Implementation in Health Services (PARIHS) framework were applied to the formation of a toolkit for the development and implementation of a new CBPC program.

Theory of Symptom Management

The Theory of Symptom Management is a middle range nursing theory that can be used to explain the phenomenon of providing palliative care services in the community or home setting for patients with life limiting illnesses. The faculty at the University of California, San Francisco (UCSF) introduced the Theory of Symptom Management to guide nurses to manage symptoms by either eliminating the symptom or removing the distress of the symptom (Humphreys et al., 2014). The Theory of Symptom Management has three major concepts including symptom experience, symptoms management strategies, and symptom status outcomes (Dodd et al., 2001). The relationships between these major concepts are displayed in the revised conceptual model in Appendix D. Symptom experience is how the individual perceives, evaluates, and responds to what he or she is feeling (Humphreys et al., 2014). Patients who qualify to receive CBPC services experience symptoms related to the extent of debilitation from disease. The goal of CBPC is to understand how patients experience symptoms and create plans

of care to reduce those symptoms. Symptom strategies are the ways to avert or minimize the symptom experience. This can be applied to CBPC programs because health care professionals are able to create patient and family centered care plans that incorporate strategies within the home to minimize symptoms. This can be achieved by reducing frequency, relieving suffering, and reducing the symptom experience. Symptom strategies can include pharmacological intervention, as well as psychological interventions such as having a social worker or chaplain come to the patient's home. Symptom outcomes are the objective and measurable outcomes after using a symptom strategy. Outcomes can include improved physical status, psychological well being, or overall quality of life. In CBPC programs, outcomes can be remaining in the home, completing ACP to identify patient's wishes and desired location of death, and maintaining or improving quality of life and psychological well being through home-based interventions.

The three major concepts are understood within the three nursing domains of person, health/illness, and environment (Dodd et al., 2001). Personal aspects include age, gender, and genetic factors. These factors can be collected and analyzed within a CBPC program to evaluate the populations being serviced and where gaps in care exist. Environmental aspects include culture, beliefs, and the location an individual lives or receives care. The IOM (2015) has identified rural communities as having limited access to palliative care services. CBPC programs fill this gap in care for individuals in rural communities. Additionally, where and how an individual lives inform symptom experiences, strategies, and outcomes. Health care professionals must assess an individual in the context of where they live. In CBPC programs, the health care professionals are able to physically see and experience where a patient lives. Finally, health/illness is the current state of health an individual has in light of diagnosis or disease state (Humphreys et al., 2014). CBPC programs serve individuals who are physically disabled due to

illness, however overall health can be intact. Symptoms can be understood and managed by comprehensively assessing the patient in the place he or she lives.

The Theory of Symptom Management can also be utilized within a CBPC program to determine aspects and outcomes of the program to be evaluated. First off, assessment of symptom outcomes should be incorporated into a toolkit for the development of a CBPC program. Symptom outcomes can include assessing completion of ACP, improvement in physical symptoms such as pain, and improvement in psychological symptoms such as low quality of life. Additionally, the domains in the Theory of Symptom Management was used to determine the inclusion criteria of a CBPC program, as well as gaps in care for certain populations. The environmental factor of living in a rural location or health/illness status of being physically limited due to disability of illness were used to determine who qualifies for a CBPC program. Objective tools, such as the Palliative Performance Scale, will be used within the toolkit to measure health/illness status for inclusion into a CBPC program. The Theory of Symptom Management concepts and domains were used to inform program evaluation to ensure the program is improving the symptom experience of patients, as well as being inclusive to all demographic populations.

PARIHS Framework

The Promoting Action on Research Implementation in Health Services (PARIHS) framework by Kitson, Harvey, and McCormack was used to create an implementation plan for a CBPC program within a large Midwest health system with a hospice and palliative care division. The PARIHS framework is utilized to assist researchers and practitioners translate research and knowledge into practice (Kitson et al., 2008). The three major concepts within this framework include evidence, context, and facilitation. The relationship amongst these concepts is that if

evidence, context, and facilitation are strong or high, then the ideal situation for implementation into practice will be achieved (Appendix E) (Kitson, Harvey, & McCormack, 1998; Kitson et al., 2008). Each of these concepts will be described and applied to the organization in which implementation will occur.

Evidence. Evidence includes research, clinical expertise, and patient choice related to a specific phenomenon (Kitson, Harvey, & McCormack, 1998). The evidence for a CBPC is strong. First, the research, though limited due to the innovative nature of CBPC programs, includes comparison trials that reveal favorable outcomes (Meyers, Kerr, & Cassel, 2014; Bull et al., 2012). Luckett et al. (2014) performed a systematic review of databases and grey literature to identify superior evidence-based palliative care models to inform policy change. Grey literature includes non-conventional reports and publications within an organization, industry, or government entity (New York Academy of Medicine, n.d.). From this review, Luckett et al. (2014) determined that community-based palliative care programs utilizing palliative care experts improve transitions and coordination of care across health care settings; therefore, showing that CBPC programs are found to be best practice.

The identified organization has clinically observed the need for a CBPC program to bridge the current gaps in care delivery. High or strong clinical experience includes consensus and consistency in views amongst staff (Kitson, Harvey, & McCormack, 1998). In addition, the IOM (2015) report on the need for CBPC programs to be implemented is based on research reviewed, as well as expert or clinical experience. The organization is piloting the MCCM to provide hospice-like supportive care to individuals in the home. However, within nine months of pilot initiation, a gap in community or home-based supportive care for non-Medicare beneficiaries has been identified. Additionally, the inclusion criteria for MCCM are restrictive.

Clinical and administrative team members within the organization have determined the need for a CBPC program to meet the needs of this patient population in the Midwest.

Evidence is also informed by patient preferences, with the highest evidence being found in partnerships with patients and families (Kitson, Harvey, & McCormack, 1998). Palliative care is a patient and family-centered approach of care for those with life limiting illnesses to improve quality of life and suffering through a holistic approach (WHO, 2016). Palliative care is continually informed by the partnerships formed between patients and families, and health care team members.

Context. The context is comprised of the environment and setting in which the proposed implementation takes place (Kitson, Harvey, & McCormack, 1998). The context is comprised of the culture, leadership, and measurements within an organization. Using the Burke-Litwin (1992) model to guide the data collection of an organizational assessment of the identified health care system, culture and leadership were both variables assessed. The collaborative culture at the Midwest health care system values each interdisciplinary team member to provide patient-centered care. The culture is impacted by continual quality improvement initiative and education on best practice within hospice and palliative care. The leadership within the Midwest health care system is clearly defined by organizational chains of command. Individual roles within the organization are less clearly defined, however each employee knows the leadership role to which they report. Finally, the measurements within the hospice and palliative care division of the organization are indicated to employees and routinely reported. These measurements include mean and average length of stay on hospice, as well as the number of admissions into MCCM or hospice. A few measurable areas within the organization that are lacking include cost saved, ED visits and hospitalizations avoided, and routine audits and feedback to employees about charting,

coding, and productivity. Measurements were addressed within the proposed CBPC program to have successful and sustainable implementation.

Facilitation. Facilitation includes the support required within the organization to change workflow, habits, and attitudes to assist with successful implementation of practice change (Kitson, Harvey, & McCormack, 1998). Facilitation is comprised of characteristics, role, and style of the organization and the individuals within it. The identified Midwest hospice and palliative care division has high levels in each of these areas. Due to the nature of hospice and palliative care, individuals within this organization have high levels of empathy and respect. In addition, hospice care is most commonly performed in patient homes. Since employees are not working within an office with continual supervision, employees are credible and reliable to the work they are performing. Also related to care being provided in the community setting, health care professionals must routinely be flexible due to patient need, geographic location, and variability in visit length. The Midwest health system hospice and palliative care division has consistent and appropriate support in place. Individuals in leadership are easily accessible and transparent about change within the organization. The facilitation is high for implementation of a CBPC program within the Midwest health system hospice and palliative care division.

The PARIHS framework by Kitson, Harvey, & McCormack (1998) was used to assist in the implementation of knowledge and research into practice to initiate a CBPC program within an identified organization. The evidence within the literature and clinical setting, the context of the Midwest health care system, and support for facilitation were considered in developing the program for this project and in the implementation recommendations. Consideration to evidence, context, and facilitation was incorporated for successful implementation of a feasible and sustainable evidence-based CBPC program.

Need and Feasibility Assessment of the Organization

The Midwest health care system with a hospice and palliative care division has identified the need for a community-based palliative care program to fill a gap in care delivery within the organization. This Midwest health care system includes a hospital group, medical group, and health insurance company. The organization offers home-based primary care for beneficiaries of the health care system insurance company who have a prognosis of three years or less.

Additionally, supportive care is provided in the organization through MCCM for Medicare beneficiaries with advanced disease and a prognosis of six months or less. This delivery system has two major gaps (Appendix F). One of these gaps in care is the lack of home-based primary care for individuals who have insurance through companies other than the Midwest health care system insurance company. Another gap in care delivery is supportive care in the last six to twelve months of life or less for patients lacking insurance coverage through companies other than Medicare.

Palliative care is a form of supportive care for patients with advanced disease (Hui et al., 2013). The Midwest healthcare system is offering palliative care like services through the Medicare Care Choices Model. However, from the program initiation in January 2016 through December 2016, the admission rate has been approximately 15.93%. An additional 14.29% of the patient referrals were admitted directly to hospice. Therefore, 69.78% of patients requiring palliative care services in the community setting did not receive this care within the organization. However, implementing a feasible and sustainable evidence-based CBPC program can bridge this gap in supportive care delivery.

An organizational assessment of the hospice and palliative care division within the Midwest health system has been performed using the Burke Litwin Model of Organizational

Performance and Change (1992). The Burke Litwin Model provides a comprehensive understanding of the organization by addressing 12 organizational variables. These 12 variables that explore organization structure and feasibility include: external environment, mission and strategy, leadership, organizational culture, structure, management practices, systems including policies and procedures, work unit climate, tasks and skills, motivation, individual needs and values, and individual and organizational performance (Burke & Litwin, 1992). Of these variables, a few specifically determine the need and feasibility of a CBPC program within the organization.

The external environment includes the conditions outside the organization that influence the organization (Burke & Litwin, 1992). The competitive healthcare climate in West Michigan impacts Midwest health system hospice and palliative care division. Other major organizations in the Midwest have palliative care programs, including CBPC programs. The patients who do not qualify for MCCM must refer to other organizations to receive the community-based palliative care services since the identified Midwest organization does not have other supportive care programs in place.

The mission at the Midwest health system is to improve the health of the communities they provide care in. In addition, the vision within the organization is to be a national leader in health care by 2020. In order to achieve the vision and mission of the organization, innovative care delivery models like a CBPC programs are needed.

Project Plan

Purpose of Project

The purpose of this Doctor of Nursing Practice (DNP) scholarly project was to address the gap in delivery of community or home-based supportive care within the identified Midwest

health system. This was addressed by answering the clinical question: What is an evidence-based community-based palliative care program that is feasible and sustainable within this Midwest organization?

Project Objectives

A toolkit for a community-based palliative care initial pilot and program was developed by:

- Performing a pre-post cost-savings analysis of MCCM data to substantiate value
- Determining a sustainable care-model to provide quality palliative care
- Creating budget based on determined care-model, allotted full-time equivalents (FTE) of available staff to pilot the program, and projected revenue
- Creating an evaluation plan to measure outcomes related to quality, sustainability, processes, and symptom management
- Creating a sustainability plan with projected growth in patient admission to the program
- Dissemination of the toolkit to key stakeholders for acceptance for implementation as an initial pilot

Type of Project

This DNP scholarly project is a quality improvement project utilizing available evidence and current practice within the organization to develop a CBPC program. Quality improvement is a systematic approach to improve health care performance and services to improve health care outcomes (Health Resources and Services Administration, 2011). Aspects of quality improvement include: collecting and analyzing data, sharing results with team members and key stakeholders, determining areas for improvement, and continual evaluation of programs and processes (American Academy of Family Physicians, n.d.).

Within this DNP scholarly project, an organizational assessment at the macro and micro levels was completed. This assessment provided information about gaps in care and needs within the organization that must be addressed to improve practice. Utilizing current practice data, and available evidence a toolkit for the development of a CBPC program was created to improve quality and access to care, while decreasing health care cost.

Setting and Needed Resources

The setting for the development of this DNP scholarly project is at a Midwest healthcare system that has a hospice and palliative care division. The implementation and care delivery will occur in community settings such as patient homes or assistive living facilities. The resources for this project included access to the electronic medical records to collect and analyze data. Another resource included the time of clinicians and administrator to collaborate in meetings to discuss program development. Additionally, the clinicians and administrative staff within the Midwest healthcare system must agree upon a CBPC program design to implement and initially pilot into practice.

Design for the Evidence-Based Initiative

The PARIHS framework by Kitson, Harvey, & McCormack (1998) was used to guide the development of an initial CBPC program pilot at the Midwest health system.

- Evidence: The available research was compiled in an integrated literature review to determine the outcomes of CBPC programs, as well as evidence-based inclusion criteria and care teams. Additionally, current practice experience with the MCCM initiation was analyzed to inform toolkit development.
- Context: The culture of the Midwest health system hospice and palliative care division is patient and family centered with high value put on quality of care. The implementation of

a CBPC program is identified as a need by both staff and leadership to improve access to quality end of life care and bridge gaps in supportive care delivery.

- Facilitation: The facilitation of a program was considered in the inclusion criteria, care model, and sustainability plan. Specifics about the program and processes were included within the toolkit as electronic documents for staff reference.

Ethics and Human Subject Protection

This DNP scholarly project is program development for quality improvement; therefore no contact with human subjects took place during toolkit development. Data was collected from EMRs and the protected network drive within the organization. The data was protected and de-identified by utilizing protocols. An application was submitted to Grand Valley State University Human Research and Review Committee (HRRC) for Institutional Review Board (IRB) approval, as well as the IRB within the Midwest organization. Both entities approved the application and concluded this DNP scholarly project was quality improvement with non-human subjects (Appendix G).

Measurements: Sources of Data

Data collection to inform the development of a CBPC program was performed by the DNP student and administrative staff. The DNP student routinely consulted a data analyst within the Midwest health care system. The data collected was used to analyze MCCM statistics, a budget for a CBPC program pilot, and a cost-savings analysis of MCCM to substantiate the need for a CBPC program.

The DNP student was required to sign a *Nursing Student and Faculty Confidentiality Statement & Code of Excellence Acknowledgement* prior to starting data collection within the organization (Appendix H). A different division of the Midwest health system employs the DNP

student, so exemption of orientation to the organization and electronic medical record (EMR) was permitted. Additionally, the DNP student was granted access to the EMRs used within the organization and hospice and palliative care division. These EMRs include Homeworks and Cerner Powerchart. Also, the DNP student was granted access to the protected network where all documents for the hospice and palliative care division are stored and shared.

The data collected from the EMRs was placed in created electronic spreadsheets to analyze the data (Appendix I). The data was collected retrospectively from patients who have either deceased or discharged from MCCM. A number was assigned to each patient to de-identify the information.

Budget. The CBPC program was not implemented during this DNP scholarly project, however the project does include the formation of a budget for an initial CBPC program pilot. Two components were considered in creating a budget for a CBPC program. The first component was the payment structure, which is fee-for-service linked to quality. The second component was a sustainable care model and FTEs available within the organization for the initial pilot.

Cost-savings analysis. A cost-savings analysis was performed using the MCCM data from the Midwest health care system from initiation in January 2016 through December 2016. A pre-post analysis was performed to determine intervention effect. Utilization of the health care system six months prior to admission to the MCCM program and while admitted to the MCCM program were determined for each patient by performing chart reviews in Cerner Powerchart. Utilization was determined by ED visits and inpatient admissions. The insurance company within the Midwest health system provided average costs for ED visits and inpatient admissions for both Medicare and private insurance companies. An average cost savings per patient per day

was calculated, as well as an analysis of cost per day six months prior to MCCM admission compared to MCCM admission.

The average cost-savings per patient per day was calculated using health care system utilization data, as well as direct cost of care on MCCM. Appendix J contains the spreadsheet used to collect data and calculate the daily cost of each patient six months prior to MCCM admission and cost on MCCM. The daily cost while admitted to MCCM was then subtracted from the daily cost six months prior to determine the daily savings. The total cost savings was determined by multiplying the daily savings by the number of days on MCCM. The EMR Homeworks was then used to run reports on the time spent with each patient by the skilled nurse, social worker, and chaplain while on MCCM. The time used by each patient was then multiplied by the hourly wage plus benefits of each discipline to determine the direct cost of care. The direct cost was then subtracted from the total savings to determine the adjusted cost savings. The average savings per patient was calculated, as well as the average savings per patient per day while on MCCM.

Steps for Toolkit Development

During the development of a CBPC toolkit, the DNP student (Appendix K):

- Analyzed the MCCM data from January 2016 through December 2016 to determine: average and median length of stay (LOS) on MCCM, percentage of transfers to hospice from MCCM, average and median LOS on hospice when transferred from MCCM, and utilization by each patient of the health care disciplines including skilled nursing, social work, and chaplain

- Utilized Cerner Powerchart to evaluate patient utilization of the health care system by emergency department visits and inpatient admissions six months prior to MCCM admission
- Utilized Cerner Powerchart to evaluate patient utilization of the health care system by emergency department visits and inpatient admissions while admitted to MCCM
- Used Homeworks to run reports on patient use of skilled nurse, social work, and chaplain while on MCCM
- Developed a pre-post cost-savings analysis of six months prior to MCCM admission compared to admission to MCCM
- Created a budget for initial pilot based on 100 visit revenue analysis already created within the organization
- Created evaluation tools to determine quality, outcomes, and areas of improvement for the a new CBPC program pilot
- Created a sustainability plan for a new CBPC program within the Midwest organization
- Created documents to standardize processes within the new CBPC program including a referral process and visit standardization form
- Produced the toolkit in a digital folder on the protected network drive within the organization.
- Defended the final DNP project at Grand Valley State University.

Project Evaluation

This DNP scholarly project is the creation of a toolkit for the development and implementation of a CBPC program. The toolkit includes processes and program logistics that will be feasible and sustainable within the Midwest health care system. Specifically, aspects of

the toolkit include: analysis of MCCM data and a cost-savings analysis of MCCM from January 2016 through December 2016, as well as the budget, inclusion criteria, program evaluation plan, and sustainability plan for an a new CBPC program pilot. This DNP scholarly project will be evaluated by acceptance of the toolkit for pilot initiation by key stakeholders within the Midwest organization. The Chief Operating Officer of Continuing Care has already approved a CBPC program pilot. The Director of Hospice and Manager of Business and Program Development of Hospice are the two key stakeholders that will accept the toolkit for implementation in an initial pilot. The DNP student will present the final toolkit to these two key stakeholders for acceptance.

Project Outcomes

Data Analysis of Current MCCM Program

Medicare Care Choices Model data was analyzed from the pilot initiation in January 2016 through December 2016 (Appendix L). There were a total of 182 patient referrals. Of these patient referrals, 29 patients were admitted to the MCCM program and 26 patients were admitted directly to hospice. Therefore, 127 patients were unable to receive community-based palliative care services within this organization. Of the 29 who were admitted to MCCM, 7% had a diagnosis of COPD, 38% CHF, 55% cancer, and 0% HIV/AIDS. The patients admitted to MCCM were not racially or ethnically diverse, with 93.1% and 6.9% being classified as white and black respectively.

The MCCM data was also analyzed for average and median length of stay (LOS). The average LOS on MCCM was approximately 71.5 days, with a median of 56 days. Of the 29 patients admitted to MCCM, 79.31% transferred to hospice. One patient died while admitted to the MCCM program, four were discharged due to prolonged prognosis past 6 months or changes in insurance coverage, and one was still admitted to the MCCM program. The average LOS on

hospice for those transferred to hospice from MCCM was 30.67 days, with a median of 11 days. The current median LOS on hospice for this Midwest health care organization is nine days; therefore there was an increase in median LOS by two days.

Further analysis of median length of stay was performed to determine if a statistical significance existed between diagnostic groups. The COPD sample only included one patient, so it was added to the CHF sample to determine if there was statistical difference in median LOS between cancer and the other two diagnoses. A Mann-Whitney U test was performed to compare the two sample medians. The Z-score p-value was 0.35238, therefore indicating no statistical significance between the median LOS on hospice for cancer patients transferred from MCCM compared to CHF and COPD patients.

Pre-Post Cost-Savings Analysis of Current MCCM Program

A pre-post cost-savings analysis was performed of patients admitted to the MCCM program that discharged, died, or transferred to hospice. Utilization of the health care system 6 months prior to MCCM and while on MCCM was measured by the number of emergency department (ED) visits and inpatient admissions. A data analyst at the Midwest health care system insurance company provided the average costs for Medicare and private insurance for ED visits and inpatient admissions. For Medicare, the average costs were \$1,000 and \$13,000 for ED and inpatient visits respectively. For private insurers, the average costs were \$1,500 and \$16,000 for ED and inpatient visits respectively. The overall utilization savings for both Medicare and private insurance was calculated per patient on MCCM (Appendix M). The average utilization cost savings per patient admitted to the MCCM program was \$1,220.34 and \$1,686.83 for Medicare and private insurance respectively. A pre-post analysis was performed versus an entire cohort since the small sample size, $n = 28$, was not powerful enough to reflect the outcomes.

Further analysis of cost savings was performed to determine if a statistical significance existed between diagnostic groups. A paired two-tailed t-test was performed to compare mean costs per day six months prior to MCCM and admission to MCCM. Appendix N contains the p-values for all MCCM patients and then broken down into diagnostic groups. The overall p-value was approximately 0.61 for both Medicare and private insurance. Therefore indicating no statistical significance in cost-savings per day. All three diagnostic groups did not have statistical significance with a p-value of less than or equal to 0.05 indicating significance. The CHF group was close to demonstrating significance with a p-value of approximately 0.065 for both Medicare and private insurance.

Proposed New CBPC Program

Budget. A budget for the new CBPC program pilot was created utilizing a 100-visit analysis performed within the organization, feasible care model within the organization, average wages for each discipline plus benefits, and payment structure. The senior financial analyst within the hospice and palliative care division has previously created a 100-visit analysis that includes monthly revenue. The revenue was determined using a statistically determined combination of visit billing codes. Since this analysis was based on 100 visits, this revenue was altered to reflect the expected 50 visits per month in the initial pilot.

The care model for the initial CBPC program pilot was based on care models in the literature, available full-time equivalents (FTE) in the organization to feasibly start a pilot. The initial pilot is provider focused since physicians and nurse practitioners provide billable services. The initial pilot includes a 0.4 FTE nurse practitioner and a 0.1 FTE physician. A 0.1 FTE was included for both a skilled nurse and social worker to provide phone support and make visits as necessary. Finally, a 0.1 FTE coordinator is included to review referred patients, schedule visits,

and help with program evaluation. The FTEs per discipline will increase with program growth. Two budgets were created, one including indirect cost and another excluding indirect cost (Appendix O). Direct cost includes the items in the budget that can be easily identified in the direct care of the patient. Indirect cost or overhead, include more abstract items or those that do not directly impact the patient. Items comprising the indirect cost include building expenses, education, office supplies, and travel expenses. The indirect cost within the hospice and palliative care division of the Midwest health system is \$68.19 per patient per day. The indirect cost was determined by multiplying this amount by the 25 expected patients and average of 30 days per month. The payment structure for this program is fee-for-service linked to quality and value. Therefore, the organization covers indirect cost due to the value it identifies in the program. However, indirect cost should still be monitored for future organizational budgeting. Additionally, the organization does not typically include indirect cost for newly piloted programs.

Inclusion criteria. The inclusion criteria for the new CBPC program pilot were determined using the common inclusion criteria in the literature; as well what seemed feasible within the organization. Discussion with administrative and clinical stakeholders led to inclusion criteria decisions. The initial pilot inclusion criteria will include: congestive heart failure (CHF) or other life-limiting cardiac diagnosis, a prognosis of 12 months or less, the patient lives within a 30 minute drive from the main hospital within this organization, the patient has any form of insurance coverage both private and government funded, and scores 70% or less on the Palliative Performance Scale (PPS). The PPS is a valid and reliable tool that provides an objective measurement of patient performance (Wilner & Arnold, 2004). The initial pilot program will be evaluated every two to four weeks to determine if inclusion criteria needs to be broadened to

capture more patients. The first inclusion criteria to change will be distance, from a 30 minute drive to a 60 minute drive. The second change to inclusion criteria will be including patients who do not qualify for MCCM within this organization.

An intake process was determined using the inclusion criteria. Appendix P contains the intake form for administrative staff to use to determine if a patient qualifies for inclusion into the CBPC pilot program. Questions were created related to the PPS, so both administrative and clinical staff could determine a PPS score with ease.

Program evaluation plan. A comprehensive evaluation plan was created for the new CBPC program pilot. The evaluation plan includes various metrics to determine utilization, program processes, and visit standardization. These metrics determine quality, as well as provide objective data for accountability to sustainability. A timeline for the initial pilot is also included to ensure program evaluation is completed to inform program change. Appendix Q contains the evaluation procedure, program timeline, and data collection spreadsheets.

The Midwest organization is beginning to utilize the Palliative Care Quality Network (PCQN) community-based data collection resources, including a survey of symptoms and well-being (Appendix R). In order to determine the quality of care in a CBPC program, patient symptoms must be rated and evaluated to determine improvement. In addition, the nursing Theory of Symptom Management was applied as a lens to create this CBPC program. The PCQN contains a variety of physical and psychological symptoms that can be rated at initial consultation, as well as at subsequent visits to determine if symptoms are being managed through this innovative palliative care program. Furthermore, this survey can initiate the conversation between the patient and the healthcare team on what physical, psychological, and sociological

factors are contributing to the patient's symptom experience and effective strategies to improve outcomes.

Sustainability plan. The sustainability plan for this CBPC program is based on action plans recommended by Bull et al. (2012) for a sustainable CBPC program. Modifications to the action plans were made to make the sustainability plan feasible within this organization. The action plans included within this CBPC program toolkit include: standardize the palliative care visit, standardize data collection and analysis, program growth and expanding the workforce, creating a culture of accountability, efficient use of time, and accurate billing and coding. Appendix S contains the sustainability plan with under each action.

Program standardization. Visit standardization creates structure to visits, as well as decreases the variability between health care professionals (Bull et al., 2012). Aspects to standardize within visits include the length of time of each visit, the number of visits expected per day per location, what data is collected, and how data is collected. Visit standardization guidelines (Appendix T) are included within this toolkit. In addition, the Midwest organization is adopting the use of the PCQN community based data collection card to ensure all pertinent patient data is being collected.

Another aspect of the program requiring standardization are the interdisciplinary team meetings. These meetings occur for the members of the health care team to discuss the current care plan of patients admitted to the CBPC program. Within this initial CBPC program pilot, the feasible care model is provider focused. Therefore, team meetings will occur between the physician and the nurse practitioner. Interdisciplinary collaboration guidelines (Appendix U) are included within this toolkit to ensure provider time is being utilized efficiently to maximize billable, patient time.

Accurate coding and billing of visits. Documents were created and included within the toolkit to assist providers to accurately bill and code visits (Appendix V). Bull et al. (2012) identifies that CBPC programs can have higher revenue if visits are accurately coded and billed. One of the greatest problems is coding and billing for length of visits versus patient complexity. A reference is included in the toolkit to assist providers with correctly determining patient complexity.

Educational resources. Bull et al. (2012) identifies the importance of continual education for health care professionals, especially on skills and topics where competency is lacking. One of these skills Bull et al. recognized as a concern was patient and family centered communication strategies related to discussing a worsening prognosis, changes in plans of care, and transitioning from palliative care to hospice. A reference of communication strategies is included in this toolkit (Appendix W).

Implications for Practice

Currently, 69.78% of patients with identified community-based palliative care needs are not able to receive care within the identified Midwest healthcare system. Utilizing a feasible and sustainable, evidence-based toolkit for the development and implementation of a CBPC program, access to quality care can be improved. The implementation of CBPC programs, based on the available literature, can improve patient and family satisfaction, increase patient referrals to hospice and length of stay on hospice, decrease ED visits and hospital admissions, and increase patient likelihood to die at home (Brumley et al., 2007). Additionally, patients cared for on the current MCCM program have had an increase in hospice LOS, high rate of transfer to hospice care from palliative care, and demonstrated cost-savings by ED and hospitalization aversion.

Collecting and analyzing data from an initial pilot program will determine additional implications for practice of a CBPC program.

Successes of Project

Throughout the development of this CBPC program toolkit, administrative and clinical team members alike commented on how a CBPC program needs to be developed within the Midwest healthcare system. However, the team members have not had the time in their current roles to research and initiate a program. Also due to time restraints, analysis of the current MCCM program data to evaluate outcomes had not been performed. This DNP scholarly project completed the creation of a feasible and sustainable program toolkit for the organization that will be implemented as a pilot program. Also, this project provided a comprehensive analysis and evaluation of the current MCCM data. This analysis provided evidence to develop a new CBPC program.

Difficulties of Project

Difficulties arose during the development of a CBPC program toolkit. The majority of the difficulties were related to operationalizing a new CBPC pilot program within the Midwest healthcare system. Some of the difficulties included: determining who of the employed healthcare team members were available to pilot this program, how many FTEs could be spared to initially pilot the program, and what cost center this program would fall under which determines the electronic medical record system used for documentation. Since this toolkit is based on what is feasible within the organization, topics related to how this program will be piloted were essential to determine. The difficulties of this scholarly project were overcome by routinely meeting with administrators and key stakeholders, creating a timeline for toolkit

determination, and having open conversation about what is currently feasible within the organization.

Strengths of Project

The greatest strength of this DNP scholarly project is that an organizational assessment of the Midwest healthcare system was completed, and the creation of a CBPC program was unanimously indicated to be a need within the organization. Therefore, key stakeholders within the organization were supportive of the work being completed. Another strength of this project is the continual input and suggestions provided by a variety of clinical and administrative team members. Administration within the hospice and palliative care division were invested into creating this toolkit to implement an initial CBPC pilot program. Therefore, administrators routinely wanted to meet to give updates from up chain command, as well as keep updated on toolkit development progress. This CBPC toolkit is feasible within the Midwest health system due to the investment of individuals within the organization to determine essential information for the toolkit, as well as giving constructive feedback.

Weaknesses of Project

Weaknesses of the project include the lack of consideration to determine hospital readmission rate and advance care plan (ACP) completion in the current MCCM program data analysis. These are both quality indicators of CBPC. Due to how MCCM data was tracked and charted, both of these data points could not be queried. Therefore, for the new proposed CBPC program pilot, evaluation criteria will be established prior to implementation to facilitate data analysis. Within the new, proposed CBPC program toolkit, ACP completion will be evaluated. Also, inpatient and ED visits while on the CBPC program will be tracked.

Another weakness is the lack of guidelines for a cost-savings analysis of the initial CBPC program. Though the cost-savings analysis from MCCM substantiates the monetary benefit of community-based programs, the process of analyzing this data is not sustainable. Since the coordinator is only a 0.1FTE, it would not be a feasible or sustainable use of time to perform a pre-post cost-savings analysis. Program evaluation through a cost-savings analysis was not included in the proposed toolkit based on administration recommendation within the Midwest organization.

Limitations of Project

Limitations to the project include lack of determination of cost center for the initial pilot and correlating EMR. The administrative team members within the hospice and palliative care division are still working with individuals in higher organizational positions to address this limitation. Also, once the cost center and EMR are decided, substantial time will be needed to ensure the EMR contains all the appropriate templates and codes. Since the cost center and correlating EMR has not been decided, time is a limitation to determining this aspect of the CBPC program toolkit. A list of items to determine and complete before initiation of a pilot program is included in the toolkit (Appendix X). The evaluation timeline will then begin once all these items are determined and the pilot program is initiated.

Another limitation, due to time, is that this DNP scholarly project is the creation of a CBPC program toolkit, not the actual implementation of a CBPC program. Since a CBPC program was not implemented, some of the toolkit is based on assumptions from clinical experience versus what actually occurred. For example, the evaluation timeline and recommended changes in the initial pilot are based on clinical expertise and discussions with clinical and administrative team members. The timeline and recommended changes were not

based on what was actually seen in the implementation of a CBPC program within the organization. Therefore, the evaluation of the proposed CBPC program may need to be revised once implementation has begun.

The small sample size from the current MCCM program to analyze baseline data is another limitation. The sample size of patients who had passed, discharged, or transferred to hospice care was 28. Furthermore, from the 28 patients, only two had COPD. Therefore, this is not a large enough to draw conclusions. Also, when performing analysis for statistical significance, the addition or exclusion of one patient substantially changed the results. Due to the small sample size, an entire cohort was not conducive.

A final limitation is the limited available literature on CBPC programs. This is in part due to the innovative nature of these programs. CAPC (2016) supports the idea of starting small to have small failures, as well as trial assumptions and evaluate outcomes to make program changes. The CBPC program toolkit is based on the limited literature, current program data, and assumptions based on clinical expertise.

DNP Essentials

The DNP Essentials outline the competencies that must be demonstrated by all the advanced practice nursing roles (American Association of Colleges of Nursing [AACN], 2006). The competencies are delineated in a variety of ways during the DNP scholarly project and DNP immersion hours. Appendix Y provides a chart of ways the DNP Essentials have been enacted in both the DNP scholarly project and immersion hours. Further explanation will be provided of the DNP Essentials that were utilized during this DNP scholarly project.

Essential I: Scientific Underpinnings for Practice

Essential I includes the scientific underpinning for practice to demonstrate the complexity of practice (AACN, 2006). This Essential was demonstrated by utilizing nursing, implementation, and organizational theories to comprehensively develop a new practice approach within a healthcare system. This CBPC program is an innovative approach including advanced strategies and communications techniques to care for individuals with life limiting illnesses.

Essential II: Organization and Systems Leadership for Quality Improvement

Essential II includes organization and systems leadership for quality improvement and systems thinking (AACN, 2006). This Essential was demonstrated by conducting an organizational assessment using the Burke Litwin Model. Additionally, this project included the development of a toolkit for an innovative care delivery approach for individuals with life limiting illnesses. Within this toolkit a budget was created and a cost-savings analysis was completed to substantiate a quality improvement initiative.

Essential III: Clinical Scholarship and Analytic Methods

Essential III includes clinical scholarship and analytical methods for evidence-based practice (AACN, 2006). This Essential was demonstrated by critically appraising the available literature and current practice within the organization to create an evidence-based program. Also, data was collected and analyzed from EMRs to evaluate current practice, as well as create a cost-savings analysis. The created toolkit includes an evaluation plan with correlating data collection spreadsheets to eventually evaluate the implemented pilot program. Finally, the DNP student acted as a consultant within the organization to collaboratively create a feasible CBPC toolkit for this organization.

Essential VI: Interprofessional Collaboration

Essential VI includes interprofessional collaboration for improving patient and population health outcomes (AACN, 2006). This Essential was enacted by routinely attending MCCM interdisciplinary team meetings. These meetings provided insight from multiple disciplines on the care provided to patients and families, as well as the processes and workflow in place. In addition, the DNP student led administrative and clinical team members in discussion about innovative, quality improvement program development to create change in the complex healthcare delivery system

Essential VII: Clinical Prevention and Population Health

Essential VII includes clinical prevention and population health for improving nation's health (AACN, 2006). The purpose of innovative care strategies for individuals with life limiting illnesses is to improve the quality of care at the end of life. This Essential was enacted by evaluating care delivery models to services patients with life limiting illnesses. Also, the community, environmental, and cultural dimensions of care were analyzed to create this CBPC toolkit. Finally, spending time with the palliative care physician in clinic provided hands on experience with the patient population of individuals with life limiting illnesses.

Essential VIII: Advanced Nursing Practice

Essential VIII the expertise advanced practice nurses have in assessing and understanding the physical, psychological, cultural, and socioeconomic aspects to care (AACN, 2006). This Essential was enacted within the DNP scholarly project by utilizing conceptual and analytical skills to evaluate the links in practice, populations, and policies that exist in MCCM and will in a CBPC program. In addition, time spent with the palliative care physician provided a space to understand how to educate and guide individuals with complex health issues. Finally, other GVSU students have been identified to mentor to continue work within this organization.

Dissemination of Outcomes

Dissemination of the toolkit for CBPC program development has occurred within the Midwest health care system to key stakeholders. The final toolkit will be disseminated further to staff when the program is implemented as a pilot. The DNP will present and defend the scholarly project to the project team at Grand Valley State University on March 30, 2017. The project will also be disseminated to classmates, students, and other faculty at Grand Valley State University as a poster presentation. The DNP student may also collaborate with the Midwest organization to disseminate the final toolkit in a journal publication or additional poster presentation.

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Appendix A: Inclusion Criteria for CBPC Programs in the Literature

Program/Source	Program/Organization Characteristics	Inclusion Criteria
Enguidanos, Cherin, and Brumley (2005)	Kaiser Permanente has a hospital group, health plan or insurance, and medical group servicing 10.6 million members (Kaiser Permanente, 2016). This study included 298 terminally ill patients in the Los Angeles area who receive care through Kaiser Permanente.	Diagnoses: COPD, CHF, cancer Life expectancy: 12 months or less
Brumley et al. (2007)	Kaiser Permanente has a hospital group, health plan or insurance, and medical group servicing 10.6 million members (Kaiser Permanente, 2016). This study included 298 patients from two locations, Hawaii and Colorado.	Diagnoses: COPD, CHF, cancer Life expectancy: 12 months or less Other: one more hospital encounters in the past year, homebound, PPS score of 70% or less
Aspire Health (2016)	A national organization that offers community-based palliative care services in 17 states.	Diagnoses: CHF, COPD, cancer, kidney failure, liver failure, ALS, advanced dementia
Meyers, Kerr, & Cassel, (2014)	This review evaluated four different case studies of CBPC programs. These organizations with CBPC programs included Stanford Health Care, Palliative Care Center of Silicon Valley, Hoag Hospital, and Palo Alto Medical Foundation.	Diagnoses: cancer, blood disorders, cardiac, pulmonary, and neurologic conditions, dementia, organ disease Life expectancy: 12 months or less
Faith Hospice/ Holland Home (2016)	Faith Hospice, once called Hospice of Holland Home is a faith-based, spiritually oriented organization that provides hospice and palliative care. Care is delivered wherever the patient is living.	Diagnoses: life limiting illnesses such as ALS, cancer, pulmonary disease, renal disease, stroke, cardiovascular disease, coma
Medicare Care Choices Model	For Medicare beneficiaries only	Diagnoses: COPD, CHF, cancer, HIV/AIDS, specific terminal illness ICD-9 or ICD-10 codes Other: enrollment in Medicare parts A, B, and D, no enrolled in other Medicare managed organizations in last two years, at least two hospitalizations in the last 12 months and three or more office visits, has not been enrolled or elected for Medicare or Medicaid Hospice Benefits in the last 30 days, lives in a traditional home for 30 days before admission

Appendix B: Interdisciplinary Teams in the Literature

Program/Source	Interdisciplinary Team
Enguidanos, Cherin, and Brumley (2005)	<ul style="list-style-type: none"> • Physician • Nurse • Social worker • Patient/family
Brumley et al. (2007)	<ul style="list-style-type: none"> • Physician • Nurse • Social Worker • Patient/Family • Additional: Chaplain/Spiritual counselor, Home aid, Bereavement counselor, PT/OT/SLP, Pharmacist, Dietician, Volunteer
Aspire Health (2016)	<ul style="list-style-type: none"> • Physician/APRN • Nurse • Additional: Social worker, Chaplain
Meyers, Kerr, & Cassel, (2014)	<p>Palliative Care Center of Silicon Valley</p> <ul style="list-style-type: none"> • Administration role • Physician • Nurse practitioner • Licensed clinical social worker • Volunteers <p>Hoag Hospital</p> <ul style="list-style-type: none"> • Physician • Clinical nurse specialist • Licensed clinical social workers, <p>Palo Alto Medical Foundation</p> <ul style="list-style-type: none"> • Physician/APRN or physician assistant • Social worker • Care coordinator • Registered nurse (RN) in 2 of 3 teams <p>Stanford Health Care</p> <ul style="list-style-type: none"> • Physician • Care coordinator • Licensed clinical social worker
Faith Hospice/ Holland Home	<ul style="list-style-type: none"> • Physician/APRN • Other care team members can be added based on patient need.
Medicare Care Choices Model	<ul style="list-style-type: none"> • Primary care provider or specialist • Palliative care certified physician • Nurse practitioner • Medical social worker • Nurse navigator • Home health aids • Homemakers • Chaplain • Volunteers

Appendix C: Outcomes of Community-Based Palliative Care Programs in the Literature

Program/Source	Diagnoses	Outcome
Enguidanos, Cherin, and Brumley (2005)	Cancer, CHF, COPD	<ul style="list-style-type: none"> • Increase likelihood to die at home • Decrease in cost
Brumley et al. (2007)	Cancer, CHF, COPD	<ul style="list-style-type: none"> • Greater satisfaction at 30 and 90 days • Increase likelihood to die at home • Decrease in cost
Kerr et al. (2014)	Cancer, asthma, COPD, CAD, diabetes, CHF, CVA, dementia, Alzheimer's, chronic renal disease, depression	<ul style="list-style-type: none"> • Decrease cost in the last three months of life • Increase in hospice admissions • Increase length of stay in hospice
Blackhall et al. (2016)	Cancer	<ul style="list-style-type: none"> • Decrease costs • Higher rates of hospice referral
Hui et al. (2014)	Cancer	<ul style="list-style-type: none"> • Decrease in ER visits, hospital and ICU admissions • Decrease deaths in the hospital setting • Decrease in aggressive end of life care
Bakitas et al. (2009)	Cancer	<ul style="list-style-type: none"> • Increased quality of life • Increased mood

Appendix D: Revised Symptom Management Conceptual Model

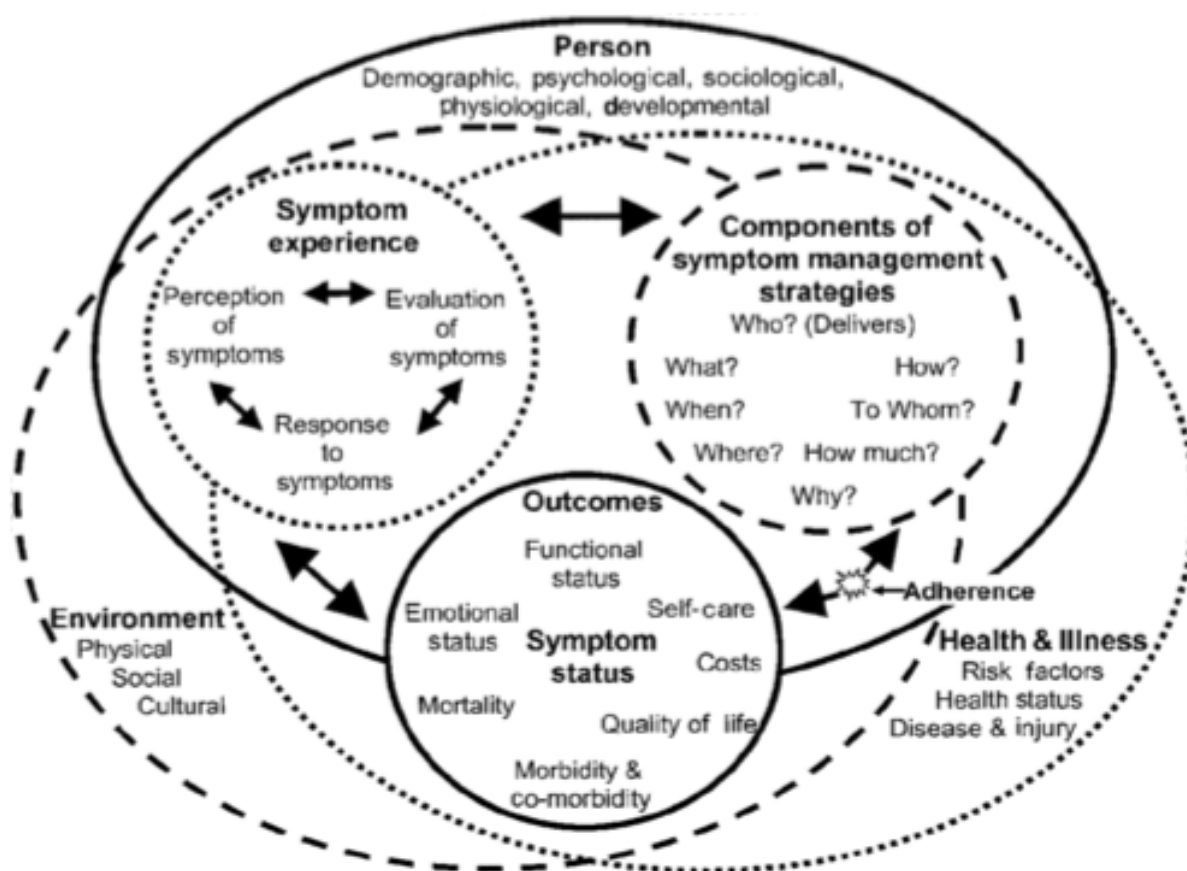


Figure 1. Revised Symptom Management Conceptual Model. Reprinted from “Advancing the Science of Symptom Management,” by M. Dodd et al., 2001, *Journal of Advanced Nursing*, 33, pp. 668-676. Copyright 2001 by Blackwell Science Ltd. Preprinted with permission.

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Original Wiley figure/table number(s)	Figure 1 Revised Symptom Management Conceptual Model.
Will you be translating?	No
Title of your thesis / dissertation	Toolkit Development for a Community-Based Palliative Care Program
Expected completion date	Apr 2017
Expected size (number of pages)	60

Appendix E: The Relationships Within the PARIHS Framework

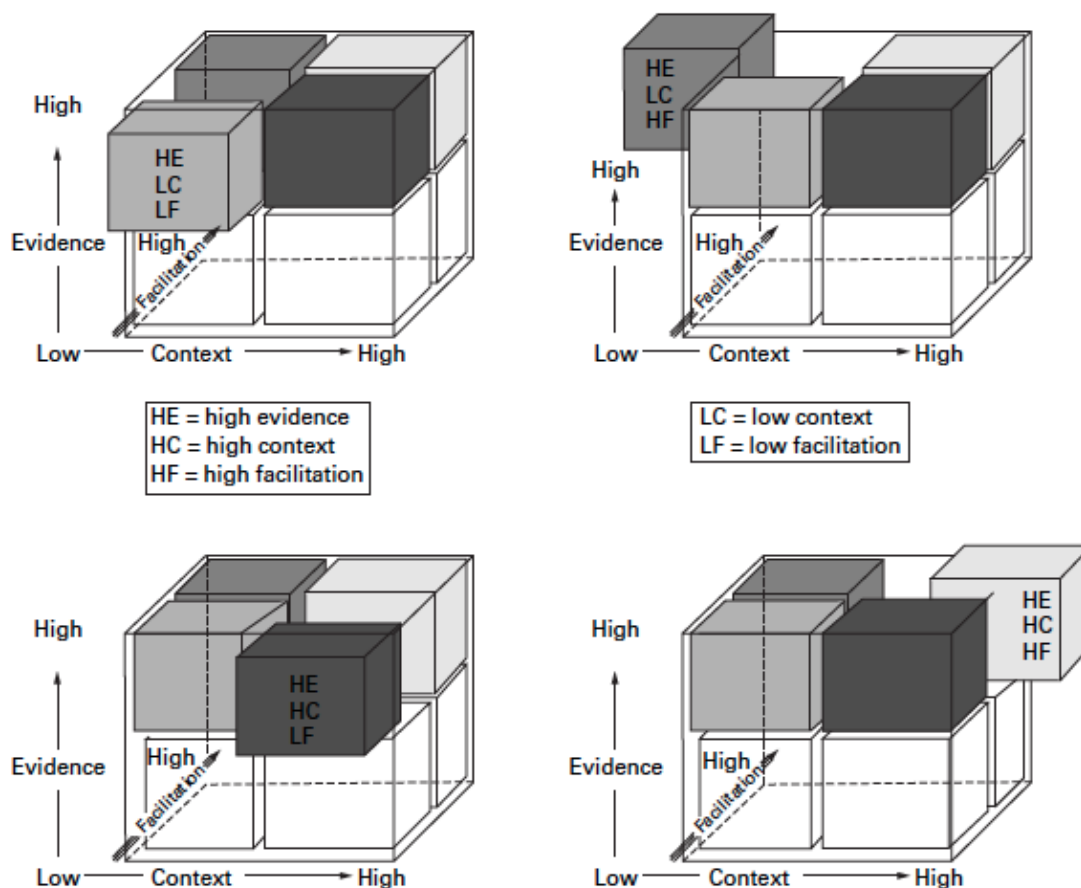


Figure 4. A three dimensional matrix in which evidence, context, and facilitation can either be expected to influence the outcome in a positive or negative way. Reprinted from “Enabling the Implementation of Evidence Based Practice: A Conceptual Framework,” by A. Kitson, G. Harvey, & B. McCormack, 1998, *Quality in Health Care*, 7, pp. 149-158. Reprint permission granted.

Author Permission

Alison Kitson <alk23@btinternet.com>

November 29, 2016 5:58 AM

To: Tanya Kolenbrander

Re: Permission Request

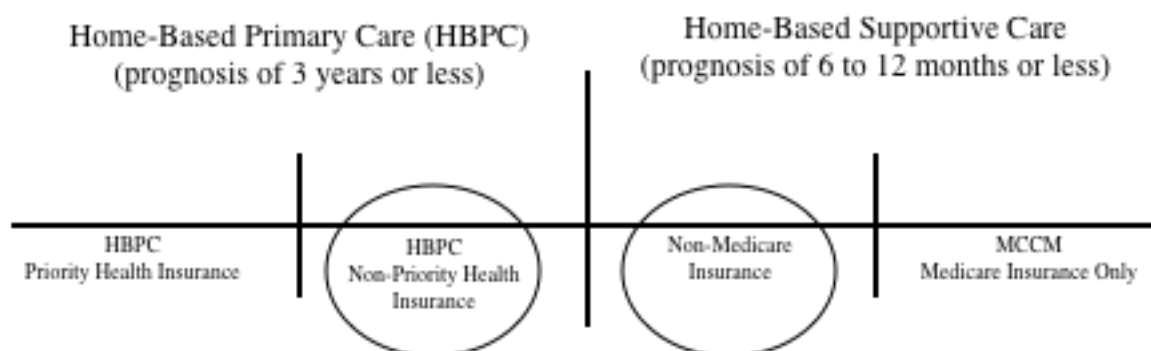
Important 2

Dear Tanya,
I am very happy for you to use the diagram in your work.
Best of luck,
Alison Kitson

--

Professor Alison Kitson
The University of Adelaide
08 8313 0511

Appendix F: Gaps in Care Delivery



* Circled areas= gaps in care in current care delivery model

Appendix G: IRB Letters



NON HUMAN RESEARCH DETERMINATION

January 9, 2017

Tanya Rowerdink BSN, DNP Student
[REDACTED]

SH IRB#: 2016-319

PROTOCOL TITLE: Toolkit Development for a Community-Based Palliative Care Program at
[REDACTED]

SPONSOR: *Other

Dear Ms. Rowerdink,

On January 9, 2017, the above referenced project was reviewed. It was determined that the proposed activity does not meet the definition of research as defined by DHHS or FDA.

Therefore, approval [REDACTED] IRB is not required. This determination applies only to the activities described in the IRB submission and does not apply if changes are made. If changes are made and there are questions about whether these activities are research involving human subjects, please submit a new request to the IRB for a determination.

A quality improvement project may seek publication. Intent to publish alone is insufficient criterion for determining whether a quality improvement activity involves human subject research. However, please be aware when presenting or publishing the collected data that it is presented as a quality improvement project and not as research.

Please be advised, this determination letter is limited to IRB review. It is your responsibility to ensure all necessary institutional permissions are obtained prior to beginning this project. This includes, but is not limited to, ensuring all contracts have been executed, any necessary Data Use Agreements and Material Transfer Agreements have been signed, documentation of support from the Department Chief has been obtained, and any other outstanding items are completed (i.e. CMS device coverage approval letters, material shipment arrangements, etc.).

Your project will remain on file with the Office of the IRB, but only for purposes of tracking research efforts within the [REDACTED] system. If you should have questions regarding the status of your project, please contact the Office of the IRB at [REDACTED] or email [REDACTED]

Sincerely,
[REDACTED]



DATE: January 11, 2017

TO: Tanya Rowerdink
FROM: Grand Valley State University Human Research Review Committee
STUDY TITLE: [1002274-1] Toolkit Development for a Community-Based Palliative Care Program
REFERENCE #: 17-093-H
SUBMISSION TYPE: New Project

ACTION: RESEARCH - NOT HSR
EFFECTIVE DATE: January 11, 2017
REVIEW TYPE: Administrative Review

Thank you for your submission of materials for your planned research study. It has been determined that this project:

Does not meet the definition of covered human subjects research* according to current federal regulations. The project, therefore, *does not* require further review and approval by the HRRC.

Any research-related problem or event resulting in a fatality or hospitalization requires immediate notification to the Human Research Review Committee Chair, Dr. Steve Glass, (616)331-8563 **AND** Human Research Protections Administrator, Dr. Jeffrey Potteiger, Office of Graduate Studies (616)331-7207. See *HRRC policy 1020, Unanticipated problems and adverse events*.

If you have any questions, please contact the Office of Research Integrity and Compliance at (616) 331-3197 or rci@gvsu.edu. The office observes all university holidays, and does not process applications during exam week or between academic terms. Please include your study title and reference number in all correspondence with our office.

*Research is a systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalizable knowledge (45 CFR 46.102 (d)).

Human subject means a living individual about whom an investigator (whether professional or student) conducting research obtains: data through intervention or interaction with the individual, or identifiable private information (45 CFR 46.102 (f)).

Scholarly activities that are not covered under the Code of Federal Regulations should not be described or referred to as *research* in materials to participants, sponsors or in dissemination of findings.

Appendix H:

NURSING STUDENT & FACULTY CONFIDENTIALITY STATEMENT & CODE OF EXCELLENCE ACKNOWLEDGEMENT

Patients and the family members of patients are the top priority of [REDACTED]. No matter what your job is in health care, what you do impacts patients and their families. One of the best ways we can ensure our visitors and patients are treated with the respect and dignity we value at [REDACTED] is to maintain their confidentiality and protect the security of data and data system(s), to which you are being granted access.

In response to this, I agree not to:

- Access, disclose, discuss or otherwise reveal any information regarding patients or visitors except that which is required in the course of performing my job duties and I will not ask others to do so.
- Disclose or discuss a patient's condition in public areas (such as elevators and hallways).
- Under any circumstances share or disclose my system ID or password.
- Use another staff member's computer ID or password or leave my computer unattended while logged in.
- Use a code, access a file, or retrieve any stored information unless I am specifically authorized to do so by Spectrum Health in the course of my job duties.
- Access, discuss, disclose, e-mail or otherwise reveal any information collected by [REDACTED] regarding care, treatment or services rendered for any staff members of [REDACTED] and its affiliated network except as required in the course of performing my job duties.
- Access my own information directly, except in [REDACTED] and otherwise will only obtain it as do all patients, in accordance with current Health Information Management Services (HIM) policy.
- Access any of my relative's information for non-business related purposes and will obtain it only with a signed, valid authorization to receive the information through HIM.
- Share or disclose any non-public information regarding [REDACTED] its clinical or business practices, strategies or policies, or its personnel, whether during or after my employment with [REDACTED]
- Transmit via Internet, instant messaging, email or other electronic medium any unencrypted identifiable patient information.
- Save any identifiable patient information on an unsecured and unencrypted storage device such as USB, CD ROM (except for ROI direct to patient), DVD, etc. computer (home computer, vendor computer, etc.) or unrestricted storage location on the Spectrum Health network.
- Post any identifiable patient information to various blogs, bulletin boards, networks, multi-media and news media sites or other user generated content "Social Media Sites".

Communications using [REDACTED] information systems are monitored for compliance. I understand that noncompliance with this policy may result in corrective action, up to and including termination, removal of access from [REDACTED] patient data and/or legal prosecution.

Acknowledgement of HIPAA Privacy Training

By signing this form, I hereby acknowledge that I have received HIPAA Privacy training and [REDACTED] has made a reasonable effort to inform me of current HIPAA regulations. I had an opportunity to ask questions and was made aware of resources to answer any additional HIPAA privacy questions as they arise. I will make all efforts to remain aware of, and comply with, Spectrum Health privacy policies.

Code of Excellence Acknowledgement

By signing this form, I hereby acknowledge receipt of access to the Code of Excellence, and that it is my responsibility to be familiar with the code's contents, I agree to comply with the standards contained in the code and all related policies and procedures as part of my continued association with [REDACTED]. I am aware of my duty to seek guidance when unsure of proper course of action and report concerns and suspected violations of the Code, [REDACTED] policies or other policies applicable to me. I understand that I am not permitted to retaliate against another person for raising a concern or reporting a suspected violations, and that any breach of the code, [REDACTED] policies or other policies applicable to me subjects me to corrective actions, up to and including termination of my relationship with [REDACTED]. I understand that I am expected to inform my manager of potential conflicts of interest that I may encounter so that these can be properly addressed, and that it is my responsibility to disclose and receive pre-approval for any potential conflict of interest per policies and procedures.

Signature _____

Date Signed _____

Printed Name (First Name, MI, and Last Name) _____

Last Four Digits of SSN _____

School _____

Email Address _____

Please return this form to the Center for Nursing Practice & Development, Fax # (616) 391-3941

Revised 4/15/2013

[REDACTED] reserves the right to alter, amend, modify, or eliminate this policy at any time without prior notice

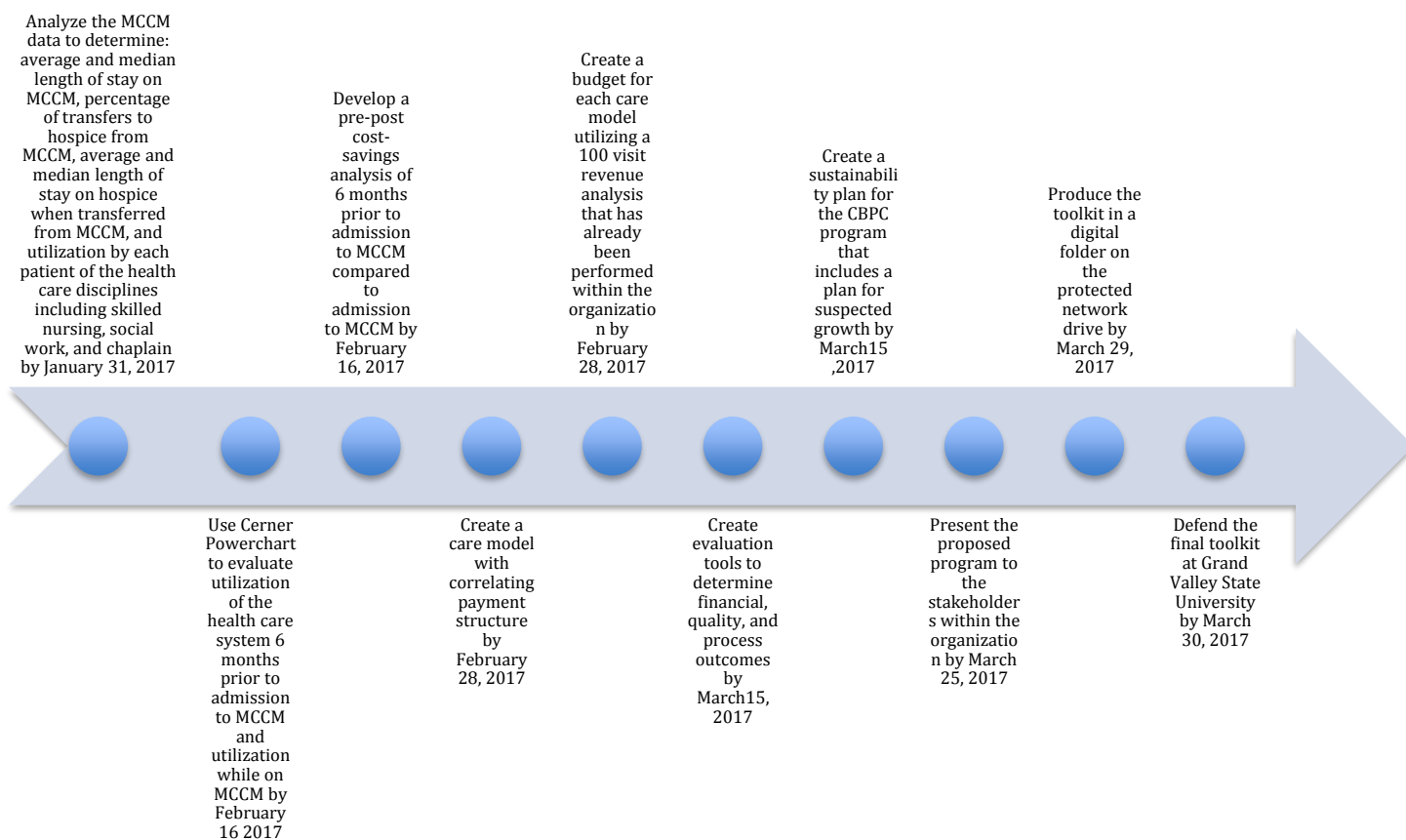
Appendix I: MCCM Program Data Collection Spreadsheets

Patient #	Diagnosis	Race	LOS MCCM (days)	Trasnferred to Hospice?	LOS Hospice (days)
Average LOS					
Median LOS					

Appendix J: Cost-Savings Data Collection Spreadsheets

<u>Individual Patient Utilization</u>				<u>Patient Discipline Utilization on MCCM</u>			
Patient #:							
Age:							
Race/ Ethnicity:							
Diagnosis:							
MCCM Admission:							
MCCM Discharge:							
MCCM LOS:							
<u>6 Months Prior to MCCM Utilization</u>							
		Cost					
Date	Type of Visit	Medicare	Private				
TOTAL							
TOTAL DAYS	180						
COST PER DAY							
<u>MCCM Utilization</u>							
		Cost					
Date	Type of Visit	Medicare	Private				
TOTAL							
TOTAL DAYS							
COST PER DAY							

Appendix K: Steps for Program Development Timeline



Appendix L: MCCM Program Analysis

MCCM Totals	
Total Referrals	182
Total Admitted	29
Percentage Admitted	15.93%

MCCM Admitted Diagnosis Breakdown		
Cancer	16	55%
CHF	11	38%
COPD	2	7%
HIV/AIDS	0	0%

Retrospective LOS on MCCM	
Total on MCCM*	28
Average	71.5 days
Median	56 days

*this includes those in MCCM who have died, transferred to hospice, or discharged from MCCM

MCCM Admission Disposition*	
Transferred to Hospice	23
Discharged	4
Died on MCCM	1

*Not including patient still admitted to MCCM

LOS on Hospice from MCCM	
Total Transfers	23
Average	24.6 days
Median	9 days
Transferred to Hospice from MCCM	79%
Transferred to Hospice from MCCM (minus those currently admitted to MCCM)	82%

Direct Admit to Hospice	
Total Direct Admits	26
Total Patient Referrals	182
Percentage Direct Hospice Referrals	14.29%

LOS on Hospice for Direct Admits	
Total Direct Admits who Have Died	22
Average	34.32 days
Median	11 days

Appendix M: Pre-Post Cost-Savings Analysis

Total Patient Savings on Medicare Care Choices

Pt #	Demographics			MCCM LOS			Private Savings
	Age	Diagnosis	Race/Ethnicity		Medicare Savings		
1	82	CHF	White	70	\$	9,086.86	\$ 11,420.66
2	75	Cancer	White	249	\$	(1,787.69)	\$ (1,787.69)
3	62	CHF	Black	199	\$	104,163.69	\$ 129,697.02
4	65	Cancer	White	39	\$	(348.00)	\$ (348.00)
5	71	CHF	White	7	\$	364.16	\$ 480.82
6	55	COPD	White	135	\$	(19,763.24)	\$ (25,388.24)
7	69	Cancer	White	96	\$	(7,490.92)	\$ (9,390.92)
8	84	COPD	White	7	\$	884.38	\$ 1,176.04
9	75	Cancer	White	31	\$	(12,357.49)	\$ (15,340.82)
10	78	Cancer	White	19	\$	(13,463.70)	\$ (16,463.70)
11	76	Cancer	White	124	\$	(4,754.53)	\$ (5,843.42)
12	75	CHF	White	35	\$	17,311.54	\$ 21,394.88
13	81	CHF	White	64	\$	(13,824.99)	\$ (17,091.66)
14	80	Cancer	White	7	\$	(301.34)	\$ (281.89)
15	70	Cancer	White	64	\$	(13,662.95)	\$ (16,662.95)
16	87	CHF	White	50	\$	11,290.40	\$ 14,345.95
17	71	CHF	White	9	\$	1,682.80	\$ 2,132.80
18	70	Cancer	White	10	\$	4,252.56	\$ 5,363.67
19	84	Cancer	Black	10	\$	1,165.01	\$ 1,498.34
20	77	CHF	White	41	\$	(181.80)	\$ (181.80)
21	69	CHF	White	104	\$	(1,192.01)	\$ (1,192.01)
22	76	Cancer	White	6	\$	(14,108.07)	\$ (17,591.40)
23	94	Cancer	White	5	\$	767.74	\$ 1,101.08
24	76	Cancer	White	194	\$	(12,590.43)	\$ (14,818.21)
25	77	CHF	White	177	\$	13,068.13	\$ 16,943.13
26	71	Cancer	White	62	\$	735.51	\$ 1,424.40
27	79	CHF	White	108	\$	(6,682.43)	\$ (7,882.43)
28	70	Cancer	White	80	\$	(8,093.61)	\$ (9,482.50)
TOTAL MCCM DAYS					2002		
TOTAL PATIENTS					28		
TOTAL UTILIZATION COST SAVINGS					\$	34,169.60	\$ 47,231.18
AVERAGE SAVINGS PER PATIENT					\$	1,220.34	\$ 1,686.83
AVERAGE SAVINGS PER DAY ON MCCM					\$	17.07	\$ 23.59
MEDIAN LOS on MCCM					56		
TOTAL UTILIZATION SAVINGS USING MCCM MEDIAN LOS					\$	955.79	\$ 1,321.15

Appendix N: Statistical Significance of Cost-Savings per Day

Statistical Significance of Daily Cost Savings

Sample	Sample Size (n)	Medicare	Private
		Two-tailed p-Value	Two-tailed p-Value
All MCCM	28	0.61669728	0.61481570
CHF	11	0.06545517	0.06565335
Cancer	15	0.25963972	0.26136187
COPD	2	0.94442742	0.95660200

* p-value of less than or equal to 0.05 indicates statistical significance

Appendix 0: Budget for Initial Pilot

100 Visit Analysis					
Visits	100	per month			
Net revenue per visit		\$ 172.39			
Revenue					
Community Palliative					
	Code	Billed	Gross	Net Revenue	
	99344	2.00	\$ 642.44	\$ 349.45	
	99345	26.00	\$ 9,413.43	\$ 4,990.21	
	99348	4.00	\$ 512.89	\$ 260.32	
	99349	9.00	\$ 1,769.53	\$ 913.27	
	99350	59.00	\$ 20,788.08	\$10,726.01	
		100.00	\$ 33,126.37	\$17,239.26	
Community-Based Palliative Care Initial Pilot Budget With Indirect Cost					
		FTE	Annual Wage	Benefit	Monthly Labor
	Nurse Practitioner	0.4	\$ 40,490.61	\$12,147.18	\$ 4,386.48
	Physician	0.1	\$ 21,960.00	\$ 6,588.00	\$ 2,379.00
	Coordinator	0.1	\$ 3,016.00	\$ 904.80	\$ 326.73
	Skilled Nurse	0.1	\$ 6,464.50	\$ 1,939.35	\$ 700.32
	Social Work	0.1	\$ 4,287.97	\$ 1,286.39	\$ 107.20
	Total	0.80	\$ 71,931.11	\$18,735.18	\$ 7,899.74
Visits	50	per month			
Patients	25				
Revenue	\$ 8,619.63				
Direct Monthly Cost	\$ 7,899.74				
Indirect Cost	\$ 51,142.50				
Margin Per Month	\$ (50,422.61)				
Community-Based Palliative Care Initial Pilot Budget Without Indirect Cost					
		FTE	Annual Wage	Benefit	Monthly Labor
	Nurse Practitioner	0.4	\$ 40,490.61	\$12,147.18	\$ 4,386.48
	Physician	0.1	\$ 21,960.00	\$ 6,588.00	\$ 2,379.00
	Coordinator	0.1	\$ 3,016.00	\$ 904.80	\$ 326.73
	Skilled Nurse	0.1	\$ 6,464.50	\$ 1,939.35	\$ 700.32
	Social Work	0.1	\$ 4,287.97	\$ 1,286.39	\$ 107.20
	Total	0.80	\$ 71,931.11	\$18,735.18	\$ 7,899.74
Visits	50	per month			
Patients	25				
Revenue	\$ 8,619.63				
Direct Monthly Cost	\$ 7,899.74				
Margin Per Month	\$ 719.89				

Appendix P: Intake Process

Intake Process

Community-Based Palliative Care

Inclusion Criteria

The inclusion criteria for the initial pilot must ALL be met and include:

- CHF or other life-limiting cardiac diagnosis
- A prognosis of 12 months or less
- Lives within a 30 minute drive from main hospital within the organization
- Has insurance coverage
- Palliative Performance Scale score of 70% or less

Questions to Ask of Referring Health Care Professional to Determine Eligibility

Determine life-limiting diagnosis

- For what diagnosis is this patient being referred to this program?
-

Determine prognosis

- Is the likelihood of death within 12 months?
-

Determine where patient lives

- Where does this patient live?
 - Look up if this location is within 30 minutes of main hospital within the organization
-

Determine Insurance coverage

- Does this patient have insurance coverage?
-

The following questions allow you to give a PPS score to the patient. Refer to the PPS chart and circle the correct response as these questions are asked

- How is the patient able to ambulate? Full, reduced, chair bound, or bedbound?
- What is the patient's activity level? Normal, normal with effort, can't do normal activities, can't do hobbies or house work, unable to do any activity?
- How much self-care is the patient able to perform? All, needs some assistance, needs considerable assistance, is mostly assisted, completely assisted?
- How is the patient eating and drinking? As normal, reduced, or minimal?
- What is the patient's level of consciousness? Full, confused, or drowsy?

%	Ambulation	Activity Level Evidence of Disease	Self-Care	Intake	Level of Consciousness
100	Full	Normal <i>No Disease</i>	Full	Normal	Full
90	Full	Normal <i>Some Disease</i>	Full	Normal	Full
80	Full	Normal with Effort <i>Some Disease</i>	Full	Normal or Reduced	Full
70	Reduced	Can't do normal job or work <i>Some Disease</i>	Full	As above	Full
60	Reduced	Can't do hobbies or housework <i>Significant Disease</i>	Occasional Assistance Needed	As above	Full or Confusion
50	Mainly sit/lie	Can't do any work <i>Extensive Disease</i>	Considerable Assistance Needed	As above	Full or Confusion
40	Mainly in Bed	As above	Mainly Assistance	As above	Full or Drowsy or Confusion
30	Bed Bound	As above	Total Care	Reduced	As above
20	Bed Bound	As above	As above	Minimal	As above
10	Bed Bound	As above	As above	Mouth Care Only	Drowsy or Coma
0	Death	-	-	-	--

(Modified from Wilner & Arnold, 2015)

Total PPS score: _____

Does the patient meet all criteria (circle): YES NO

If so, add to Community-Based Palliative Care referral spreadsheet in the M:drive and contact nurse practitioner to arrange initial consultation

PPS

Julie Christenson <juliechristensonrn@gmail.com>

Sent: Mon 2/13/2017 9:22 PM

To: Rowerdink, Tanya A.

Tanya,

Permission is granted for the use of the PPS. Thanks!

PCNOW

--

Julie Christenson, BSN, RN, CHPN
Aurora At Home - Zilber Family Hospice
UW-Milwaukee - College of Nursing:
Doctor of Nursing Practice - FNP Student

Appendix Q: Program Evaluation, Timeline, and Data Collection Spreadsheets

Program Evaluation

Community-Based Palliative Care

Pilot program evaluation is to take place every two to four months. Once the program is established, evaluation is to take place monthly. Spreadsheets for data collection are available in the M:drive under CBPC Pilot.

Metrics to Evaluate Community-Based Palliative Care Program

Patient Profile

- Diagnosis
- Race/Ethnicity

Program Utilization Measurements

- Total patient referrals
- Total admitted to program
- Reason for ineligibility
- Referral source
- Discharges from CBPC

Patient Utilization Measurements

- ED visits and hospital admissions while on CBPC
- Desired location of death identified on advanced care planning
- Location of death

Operation/Process Measurements

- Completion of Advanced Care Planning
- Percentage transfer to hospice
- Mean and Median LOS on CBPC (in days)
- Percentage transfer to hospice from CBPC
- Mean and Median LOS on hospice post transition from CBPC
- Percentage directly admitted to hospice

Visit Standardization Measurements

- Average time per visit for new and established patients
- Number of patient visits per day
- Completion of PCQN Community Based Data Collection Card

Symptom Management

- PCQN Symptom & Well-Being Survey

(CAPC, n.d.)

[illegible]

Program Plan and Timeline

Community-Based Palliative Care

Initial Pilot Plan A

Start Date: _____

- Initial Inclusion Criteria:
 - CHF or other life-limiting cardiac diagnosis
 - A prognosis of 12 months or less
 - Lives within a 30 minute drive from the main hospital within the organization
 - Has insurance coverage
 - Palliative Performance Scale score of 70% or less

Evaluate Initial Pilot Plan A

Evaluation Date: _____

- Evaluate in 2 to 4 weeks
- At four weeks, if 12 patients or more have been admitted to the program, continue with Initial Pilot Plan A
- If less than 12 patients have been admitted to the program, refer to Pilot Plan B

Pilot Plan B

Start Date: _____

- Modified Inclusion Criteria:
 - CHF or other life-limiting cardiac diagnosis
 - A prognosis of 12 months or less
 - Lives within a 60 minute drive from main hospital within the organization
 - Has insurance coverage
 - Palliative Performance Scale score of 70% or less

Evaluate Pilot Plan B

Evaluation Date: _____

- Evaluate in 2 to 4 weeks
- At four weeks, if 12 patients or more have been admitted to the program, continue with Pilot Plan B
- If less than 12 patients have been admitted to the program, refer to Pilot Plan C

Pilot Plan C

Start Date: _____

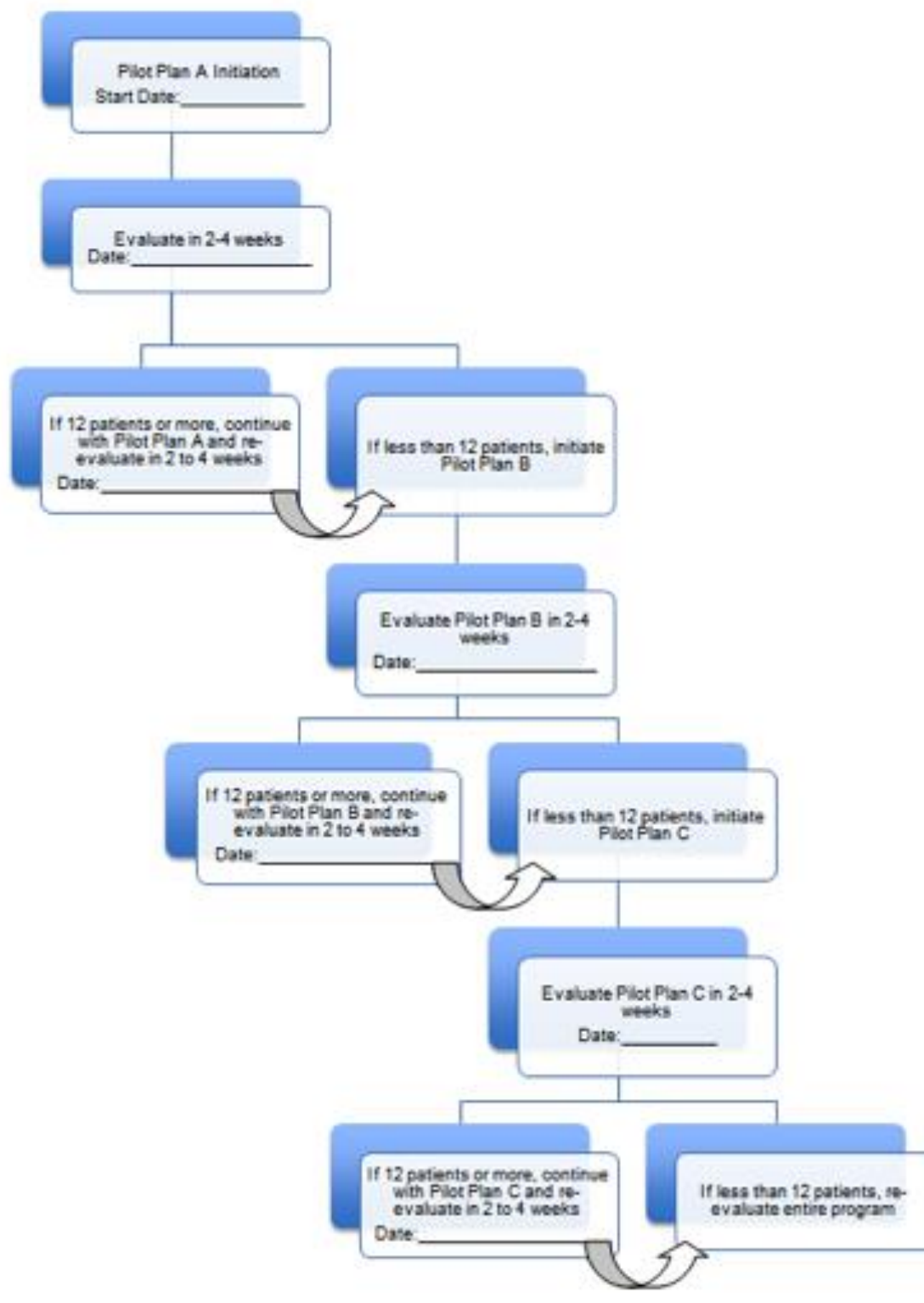
- Modified Inclusion Criteria:
 - CHF or other life-limiting cardiac diagnosis
 - A prognosis of 12 months or less
 - Lives within a 60 minute drive from main hospital within the organization
 - Has insurance coverage
 - Palliative Performance Scale score of 70% or less
 - Admit anyone who does not qualify for the Medicare Care Choices Model (MCCM)

Evaluate Pilot Plan C

Evaluation Date: _____

- Evaluate in 2 to 4 weeks
- At four weeks, if 12 patients or more have been admitted to the program, continue with Pilot Plan C
- If less than 12 patients have been admitted to the program, re-evaluate the whole program

Community-Based Palliative Care Pilot Program Timeline



Appendix R: PCQN Survey and Data Collection Spreadsheet

Symptom & Well-Being Survey

On a scale of 0-10, please rate **how you are feeling now** by circling the appropriate number.

No pain	0 1 2 3 4 5 6 7 8 9 10	Worst possible pain
Not tired	0 1 2 3 4 5 6 7 8 9 10	Worst possible tiredness
Not nauseous	0 1 2 3 4 5 6 7 8 9 10	Worst possible nausea
Not depressed	0 1 2 3 4 5 6 7 8 9 10	Worst possible depression
Not anxious	0 1 2 3 4 5 6 7 8 9 10	Worst possible anxiety
Not drowsy	0 1 2 3 4 5 6 7 8 9 10	Worst possible drowsiness
Best appetite	0 1 2 3 4 5 6 7 8 9 10	Worst possible appetite
Best feeling of wellbeing	0 1 2 3 4 5 6 7 8 9 10	Worst possible feeling of wellbeing
No shortness of breath	0 1 2 3 4 5 6 7 8 9 10	Worst possible shortness of breath
Not constipated	0 1 2 3 4 5 6 7 8 9 10	Worst possible constipation
Other problem:	0 1 2 3 4 5 6 7 8 9 10	

Please circle the **ONE** response that is most true for you:

Are you at peace?

Not at all A little bit A moderate amount Quite a bit Completely

How would you rate your overall quality of life?

Very poor Poor Fair Good Excellent

Please circle the number (0-10) that best describes how much distress you have been experiencing in the past week including today.

Extreme distress

No distress

Appendix S: Sustainability Plan

Sustainability Plan

Community-Based Palliative Care

Aspects to Address to Impact Sustainability:

Standardize Palliative Care Visits

- Visit Standardization Guidelines
- Data collection tools-PCQN Community Based Data Collection Card
- Symptom assessment tools- PCQN Symptoms & Well-Being Survey

Standardize Data Collection and Analysis

- Program Evaluation form
- Date to be collected in the CBPC Program Evaluation Excel spreadsheet in m:drive
- Program to be evaluated every two to four weeks during initial CBPC pilot

Program Growth

- Increase CBPC referrals by broadening inclusion criteria and providing education to potential referral sources
- Create pamphlets to quickly reference and learn about the CBPC program

Expand Workforce

- As the program grows increase FTEs of all disciplines
- To service 50 patients, all FTEs in current budget must be doubled to the following: 0.2 FTE Physician, 0.8 FTE Nurse Practitioner, 0.2 Skilled Nurse, 0.2 Social Worker, 0.2 Coordinator
- Maintain a 1:2.5 ratio of Physician to Nurse Practitioners

Culture of Accountability

- Weekly interdisciplinary meetings between Physician and Nurse Practitioner using Interdisciplinary Collaboration Guidelines
- Determine education needs
- Coordinator to send Program Evaluation Analysis to team members

Efficient Use of Time

- Visit Standardization Guidelines
- Coordinator to initiate the intake process with Intake Process form, schedule appointments, call patients with visit reminders, and analyze data in CBPC Program Evaluation Excel spreadsheet
- Visits are to be geographically scheduled once program has more than 12 patients

Accurately Code and Bill Visits

- Key Components for Coding Patient Visits
- Professional Services Coding Guide

(Bull et al., 2012)

Appendix T: Visit Standardization Guidelines

Visit Standardization Guidelines

Community-Based Palliative Care

Visits Per Day (0.2 FTE) Per Location

Location	Number of Visits Per Day
Hospital	8-10 visits per day
Nursing Home/ Assisted Living Facility	7-8 visits per day
Home Setting	4-5 visits per day

Visit Length

Patient Status	Length of Visit
New Patient	90 minutes
Established Patient	60 minutes

Charting Standardization

Purpose	Form
Initial Visit Information Collection	PCQN Community Based Data Collection Card
Symptom Assessment	PCQN Symptom & Well-Being Survey

(Bull et al., 2012)



(1) Visit Date: ____/____/____ (2) Initial Consult: <input type="checkbox"/>		Medical record #: _____			
(3a) Patient Type: <input type="checkbox"/> Clinic <input type="checkbox"/> Home <input type="checkbox"/> SNF/Nursing Home		Last name: _____			
(3b) Tele-visit: <input type="checkbox"/>		First name: _____			
(4) Age: _____	(6) Referral Source (choose one):				
(5) Gender: _____	<input type="checkbox"/> Inpatient PC <input type="checkbox"/> Emergency Dept. <input type="checkbox"/> Outpatient PC <input type="checkbox"/> Self <input type="checkbox"/> Unknown <input type="checkbox"/> Other Inpatient Team <input type="checkbox"/> Primary Care <input type="checkbox"/> Other Outpatient Specialist <input type="checkbox"/> Other: _____				
(7) Reasons given by referring provider for initial PC visit (check all that apply):					
<input type="checkbox"/> GOC discussion/ACP <input type="checkbox"/> Pain Management <input type="checkbox"/> Other symptom management <input type="checkbox"/> Support for patient/family <input type="checkbox"/> Support with treatment decisions <input type="checkbox"/> Transfer to comfort care bed/unit <input type="checkbox"/> Comfort care <input type="checkbox"/> Hospice referral/discussion <input type="checkbox"/> No reason given <input type="checkbox"/> Other: _____					
(8) Primary diagnosis leading to PC consult (check one):					
<input type="checkbox"/> Cancer (solid tumor) <input type="checkbox"/> Vascular <input type="checkbox"/> Congenital/chromosomal <input type="checkbox"/> Infectious/immunological/HIV <input type="checkbox"/> Neurologic/stroke/neurodegenerative <input type="checkbox"/> Hematology <input type="checkbox"/> Complex chronic conditions/failure to thrive <input type="checkbox"/> Gastrointestinal <input type="checkbox"/> In-utero complication/condition <input type="checkbox"/> Dementia <input type="checkbox"/> Cardiovascular <input type="checkbox"/> Renal <input type="checkbox"/> Hepatic <input type="checkbox"/> Trauma <input type="checkbox"/> Other: _____					
(9) Advance Directive document on chart/available at time of visit? <input type="checkbox"/> No <input type="checkbox"/> Yes					
(10) POLST on chart/available at time of visit? <input type="checkbox"/> No <input type="checkbox"/> Yes					
(11) Palliative Performance Scale (PPS) at time of visit (circle): 100% 90% 80% 70% 60% 50% 40% 30% 20% 10% 0%					
(12) PC team member disciplines involved in the visit:					
<input type="checkbox"/> Physician <input type="checkbox"/> Clinical Nurse Specialist <input type="checkbox"/> Nurse Practitioner <input type="checkbox"/> Nurse <input type="checkbox"/> Physician Assistant <input type="checkbox"/> Other: <input type="checkbox"/> Social Worker <input type="checkbox"/> Chaplain <input type="checkbox"/> Psychologist/Psychiatrist <input type="checkbox"/> Pharmacist <input type="checkbox"/> Community Health Worker					
Assessment/ Intervention:	(13) Screening			(14) Intervened	(15) Preference for Life-Sustaining Treatment:
	Negative	Positive	Declined	Unable	<input type="checkbox"/> Full <input type="checkbox"/> Partial <input type="checkbox"/> DNR/DNI <input type="checkbox"/> Unknown
Pain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(16) Surrogate Decision Maker Identified:
Non-pain symptoms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Identified and documented <input type="checkbox"/> Not addressed
Psychosocial needs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Addressed but unable to confirm
Spiritual needs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(17) Support for Caregiver Provided:
Goals of care/ ACP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No caregiver present
(19) Services referred to:					(18) Other Outcomes:
<input type="checkbox"/> Hospice <input type="checkbox"/> Home Health <input type="checkbox"/> Home-based Palliative Care <input type="checkbox"/> Admission to Hospital <input type="checkbox"/> Emergency Department <input type="checkbox"/> Social Work <input type="checkbox"/> Physical Therapy <input type="checkbox"/> Integrative Therapies <input type="checkbox"/> No services <input type="checkbox"/> Mental Health <input type="checkbox"/> Other: _____					<input type="checkbox"/> Preference for life-sustaining treatment clarified <input type="checkbox"/> Advance Directive completed <input type="checkbox"/> POLST completed
Patient Symptoms: Use Separate Patient Form or Indicate Results Below					Space for Optional Items
(20) ESAS Measures (0-10)					
(21) Are you at peace?					
<input type="checkbox"/> Not at all <input type="checkbox"/> Quite a bit <input type="checkbox"/> Little bit <input type="checkbox"/> Completely <input type="checkbox"/> Moderate amount <input type="checkbox"/> Pt. unable to rate					
(22) How would you rate overall quality of life?					
<input type="checkbox"/> Very poor <input type="checkbox"/> Good <input type="checkbox"/> Poor <input type="checkbox"/> Excellent <input type="checkbox"/> Fair <input type="checkbox"/> Pt. unable to rate					
(23) Distress Thermometer: How much distress have you been experiencing in the last week including today? (0 – no distress to 10 – extreme distress):					

Appendix U: Interdisciplinary Collaboration Guidelines

Interdisciplinary Collaboration Guidelines

Community-Based Palliative Care

Interdisciplinary Collaboration Standardization:

- Collaboration between the Physician and Nurse Practitioner occur weekly in-person
- Meetings to last 30 to 60 minutes
- Utilize the content below to lead discussion

Patient Name: _____

Situation

- Diagnosis
- Current plan of care
- Briefly describe the situation
- Changes (physical, psychological, or social) that may require a change in the plan of care

Background

- Pertinent history (physical, psychological, or social)

Assessment

- Physical, psychological, and/ or social findings
- Review notes from Skilled Nurse or Social Worker

Recommendations

- Changes in plan of care
- Interventions needed
- Determine when and who should see patient next

ALWAYS finish with these questions:

- What needs to be changed in processes?
- Have we filled out all data in the CBPC Program Evaluation spreadsheet?
- Further resources or educational needs?

Appendix V: Billing and Coding Resources

Key Components for Coding Patient Visits

Community-Based Palliative Care

History

Problem Focused: Chief complaint; Brief HPI (1-3 elements)

Expanded Problem Focused: Chief complaint; Brief HPI (1-3 elements); Problem pertinent ROS (1 system)

Detailed: Chief complaint; Extended HPI (4 or more elements OR status of 3 or more chronic/inactive conditions); Extended ROS (2-3 systems); Pertinent PFSH (1 item from 1 element)

Comprehensive: Chief complaint; Extended HPI (4 or more elements OR status of 3 or more chronic/inactive conditions); Complete ROS (10+ systems); Complete PFSH (1 item from at least 2 or 3 elements for established patients & ER, OR service/ 1 item from all 3 elements for new patients, consults, hospital care, observation, nursing care facility)

Exam

Problem Focused: A limited exam of the affected body area or organ system (1-5 aspects)

Expanded Problem Focused: A limited exam of the affected body area or organ system and other related or symptomatic organ systems (at least 6 aspects)

Detailed: General multi-system exam (2 comments per 6 organ systems OR 12 comments on 2 or more organ systems); Single organ system exam (at least 12 comments for all organ systems other than eye and psych exam, then 9 comments)

Comprehensive: General multi-system exam (at least 2 comments for the 9 organ systems/areas)

Medical Decision Making

2 out of 3 of the elements below must meet or exceed the Medical Decision Making type

Type of Decision Making	# Dx or Interventions	Amount/Complexity of Data Reviewed	*Risk of Complications, Morbidity, Mortality
Straightforward	Minimal	Minimal/None	Minimal
Low Complexity	Limited	Limited	Low
Moderate Complexity	Multiple	Moderate	Moderate
High Complexity	Extensive	Extensive	High

*Risk includes the risk for complications, morbidity, or mortality from the presenting problem, diagnostics, or treatment

Contributing Component: Nature of Presenting Problem

Minimal: A problem may not require the presence of a provider, but services are being provided under provider supervision

Self-Limited or Minor: A problem running a definite course, and is not likely to permanently alter health OR has a good prognosis

Low Severity: Risk of morbidity without tx is low, little risk of mortality without tx, full recovery is expected

Moderate Severity: Risk of morbidity without tx is moderate, moderate risk of mortality without tx, uncertain prognosis OR increased probability of functional impairment

High Severity: Risk of morbidity without treatment is high, moderate to high risk of mortality without tx OR high probability of severe functional impairment

(Modified from Uecker, n.d.)

Professional Services Coding Guide

Community-Based Palliative Care

Agency: _____ Date of Service: _____
 Patient Name: _____ Medical Record Number: _____
 Diagnosis: 1. _____ ICD-10: 1. _____
 2. _____ 2. _____
 3. _____ 3. _____
 4. _____ 4. _____

Home Patient Billing Codes			
X	CPT	Complexity	Time
	99341	New Low Complexity	New 20 min
	99342	New Low Complexity	New 30 min
	99343	New Mod. Complexity	New 25 min
	99344	New Mod. Complexity	New 60 min
	99345	New High Complexity	New 75 min
	99347	Est. Low Complexity	Est. 15 min
	99348	Est. Low Complexity	Est. 25 min
	99349	Est. Mod. Complexity	Est. 40 min
	99350	Est. High Complexity	Est. 60 min
	99354	Add at 30-74 min. above base time	
	99355	Add at each additional 15-30 min.	

ALF or Rest Home			
X	CPT	Complexity	Time
	99324	New Straight Forward	New 20 min
	99325	New Low Complexity	New 30 min
	99326	New Mod. Complexity	New 45 min
	99327	New Mod. Complexity	New 60 min
	99328	New High Complexity	New 75 min
	99334	Est. Straight Forward	Est. 15 min
	99335	Est. Low Complexity	Est. 25 min
	99336	Est. Mod. Complexity	Est. 40 min
	99337	Est. High Complexity	Est. 60 min
	99354	Add at 30-74 min. above base time	
	99355	Add at each additional 15-30 min.	

Nursing Home Patient Billing Codes			
X	CPT	Complexity	Time
	99304	Int. Low Complexity	Initial 20 min
	99305	Int. Mod. Complexity	Initial 35 min
	99306	Int. High Complexity	Initial 45 min
	99307	Sub. Low Complexity	Sub. 10 min
	99308	Sub. Low Complexity	Sub. 15 min
	99309	Sub. Mod. Complexity	Sub. 25 min
	99310	Sub. High Complexity	Sub. 35 min
	99356	Add at 30-74 min. above base time	
	99357	Add at each additional 15-30 min.	

Transitional Care Management Services			
X	CPT	Complexity	Parameters
	99495	Est. Mod. Complexity	F2F within 7 days
	99496	Est. High Complexity	F2F within 7 days
	99495	Est. Mod. Complexity	F2F within 8 - 14 days
	99496	Est. High Complexity	F2F within 8 - 14 days

Chronic Care Management Services			
X	CPT	Time	Parameter
	99490	20 min. per month	non-F2F care coordination

Advance Care Planning			
X	CPT	Time	Parameter
	99497	up to 30 min.	Advance directive discussion
	99498	additional 30 min.	Advance directive discussion

Patient Scheduling	
Week of / Specific Date: _____	Patient Discharge/Transfer Details: _____
Location: _____	

Appendix W: Additional Resource

Communication Strategies

Community-Based Palliative Care

Communication – Six Steps:

1. Prepare
2. Establish (patient perspective)
3. Determine (patient/family preferences)
4. Deliver (information)
5. Respond (emotion)
6. Establish (plan, goals)

SPIKES: “Bad News” format

S: Setting

“Set-up”: Preparation/Planning
 Environment/Comfort
 Avoid Distractions
 Participants/Introductions
 “Warning Shot”

P: Patient/Family Perspectives

Perception of current status
 Expectations
 Misunderstanding/Misconception/Denial
 Values/Goals

I: Invitation

Type/Extent of Information (Prognosis)

K: Knowledge

Gauge to Individual
 Direct/Avoid Jargon
 Small “Chunks”
 Ask-Tell-Ask
 Relate Information to values/goals
 Address decision points: goals & necessary specifics (eg, DNR)

E: Emotion/Uncertainty

Respond to Emotion
 (NURSE mnemonic)
 Manage Uncertainty

S: Summary

Summarize
 Assess
 Understanding
 Strategy/Next Steps
 Follow-up
 Nonabandonment

NURSE: Responding to Emotion

N: Name

Suggestive rather than Declarative (“It sounds like.....”)
 Active Listening
 Restate/Summarize

U: Understand

Exploration/Active Listening/Appropriate Silence
 (“I’m understanding, you to say.....”)
 (“I cannot imagine what it is like.....”)
 Avoid Premature Reassurance

R: Respect

Acknowledge/Respect Intensity of Emotion
 Normalize
 Praise Coping Skills
 Non-Verbal Cues Important

S: Support

Expression of Concern
 Articulate Understanding
 Willingness to Help/Partner
 Nonabandonment

E: Explore

(“tell me more....”)
 Empathy (contrasted with sympathy)
 (“I.....you.....”)

Shared Decision-Making:

Overall Purpose:

- Mutual/shared Understanding
- Mutual/shared Goals and Plan
- Healing Relationship

“VALUE”

V alue Patient/Family Statements
 A cknowledge emotion/uncertainty
 L isten
 U nderstand
 E licit Questions

“ASCEND”

A nticipate (pre-planning)
 S ummarize (understanding)
 C oncerns (acknowledge)
 E xplore, Explain (information, goals)
 N ext steps
 D ocument

(Modified from Johnson, n.d.)

Goals of Care: The Essence

Dr. Simin N. Beg, MD, MBA, FAAHPM

Why?

- Help patients, caregivers, and families come to terms with the reality of their illness
- Help to facilitate alignment of patient and family values
- We cannot create a plan of care without goals of care

Three Questions

- What does the patient/family understand about the disease process, progression, and treatment options?
- What are hopes/fears?
- How can we assist to align the two?

Seven Steps

- Create the right setting, involved the key individuals
- Determine what the patient and family know
- Hopes/fears
- Suggest realistic goals
- Respond empathetically
- Make a plan
- Review and revise as appropriate

Language with NEGATIVE Connotation

- Do you want everything done?
- Do you want to discontinue care?
- Do you want hospice?
- It's time to stop aggressive treatments
- We will make sure he/she doesn't suffer

Language with POSITIVE Connotation

- We will provide the best care possible until the very end
- We will concentrate on improving your quality of life
- We want to help you live meaningfully
- We want to make sure you get the treatment that you want
- Your comfort and dignity is our priority
- We will focus on treating your symptoms
- Let's discuss what we can do to fulfill your wish to stay in your home

Challenges

- Preconceived notions/agendas
- Labels
- Cultural barriers

(Bernacki & Block, 2014; Stone, 2001)

Appendix X: Items to Determine and Complete Before Program Pilot

Items to Determine and Complete Before Pilot Initiation

Community-Based Palliative Care

Purpose

The below items must be determined and completed prior to a community-based palliative care pilot program initiation. These items are to be determined by administrative roles.

Item to be Determined Before Pilot Initiation	Completion Date
Kay stakeholder approval for pilot program initiation	
Determine employees for each discipline role	
Orient employees to the program <ul style="list-style-type: none"> ■ Intake process and inclusion criteria ■ Visit standardization guidelines ■ Interdisciplinary collaboration guidelines ■ Data collection forms and spreadsheets ■ Data evaluation plan and expectations 	
Determine cost center	
Determine electronic medical record (EMR) <ul style="list-style-type: none"> ■ Template creation or utilize current templates in outpatient palliative clinics 	
Determine pilot start date <ul style="list-style-type: none"> ■ Begin Program Plan and Timeline 	

Appendix Y: Enactment of DNP Essentials

DNP Essential	Evidence of DNP Essential Competencies
I. Scientific Underpinnings for Practice	<ul style="list-style-type: none"> • Developed a program based on innovative, new practice approaches • Applied an implementation theory (PARIHS) and nursing theory, Theory of Symptom Management, to implementation and evaluate developed program • Used the Burke Litwin Model to comprehensively assess an organization • Created aspects within the toolkit to provide advanced strategies and communication techniques
II. Organization and Systems Leadership for Quality Improvement and Systems Thinking	<ul style="list-style-type: none"> • Developed a care delivery approach that meets the current need of the organization, along with anticipates program growth • Utilized principles in business and finance to develop a program budget and perform a pre-post cost-savings analysis with statistical analysis • Created procedures for ethically collecting data to analyze for research
III. Clinical Scholarship and Analytical Methods for Evidence-Based Practice	<ul style="list-style-type: none"> • Used analytic methods to appraise the available literature related to community-based palliative care (CBPC) to create an evidence-based toolkit for the development of a CBPC program • Designed a process to evaluate outcomes of a CBPC program including processes, quality indicators, patient demographics, and utilization. • Designed a CBPC program to improve quality of care delivered within an organization by increasing access to care • Used information technology to collect data and analyze data from various EMRs • Acted as a consultant within the Midwest organization to collaborate and create a CBPC program that is feasible within this organization • Disseminate DNP scholarly project to key stakeholders within the organization and GVSU
IV. Information System/Technology and Patient Care Technology for the Improvement and Transformation of Health Care	<ul style="list-style-type: none"> • Attended Great Lakes Health Connect Summit to better understand ethical and legal issues that can exist in healthcare information technology • Demonstrated conceptual ability and skills to develop an evaluation plan with corresponding interfaces to collect program data • Collect data from various EMRs to inform quality improvement
V. Health Care Policy for Advocacy in Health Care	<ul style="list-style-type: none"> • Analyzed health policy and initiatives related to the CMS Medicare Care Choices Model (MCCM) program • Influenced policy makers and advocated for the nursing profession by attending MICNP Advocacy Day in Lansing

	<p>and attending the advocacy event at GVSU</p> <ul style="list-style-type: none"> • Learned to better advocate for social justice, equity, and ethical policies by attending the medical humanities conference at Western Michigan University and a conference on human trafficking • Attended a multidisciplinary conference on the opioid epidemic to analyze the provider role within this public health issue
VI. Interprofessional Collaboration for Improving Patient and Population Outcomes	<ul style="list-style-type: none"> • I attended the Midwest Interprofessional Practice Education and Research Center conference to learn effective communication and collaboration skills, as well as initiatives in health care education • Used effective communication and collaboration skills in MCCM interdisciplinary team meetings • Lead administrative and clinical care team members in discussion about innovative, quality improvement program development to create change in the complex healthcare delivery system
VII. Clinical Prevention and Population Health for Improving the Nations Health	<ul style="list-style-type: none"> • Attended conferences on various populations to synthesize concepts related to clinical prevention and health promotion. These conferences discussed populations including: U.S. Veterans, individuals with life-limiting illnesses on palliative care, oncology, those with mental health illnesses, • Attended the Michigan Nursing Summit, which analyzed the current culture of health including the epidemiological, biostatistical, and environmental factors that contribute to health. • Evaluated care delivery models to service patients with life-limiting illnesses. Analyzed community, environment, culture, and socioeconomic dimensions to create a toolkit for an innovative care delivery model.
VIII. Advanced Nursing Practice	<ul style="list-style-type: none"> • Spent 500 hours in primary care and 100 hours in a specialty office to develop and demonstrate advanced levels of clinical thinking, judgment, and accountability to evidence-based interventions • Spoke at a Graduate Student Organization meeting to discuss my experience as a 4th year DNP student and my scholarly project work to act as a mentor to other students • Spent time with Dr. Beg in the CHF clinic to learn how to educate and guide individuals and families through complex health situations • Used conceptual and analytic skills to evaluate the links between practice, populations, and policies that exist within MCCM.