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# Development of a Guideline for Hospice Staff, Patients, and Families on Appropriate Opioid Use

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# Walden University

College of Health Sciences

This is to certify that the doctoral study by

Trenika Alexander-Goreá

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and that any and all revisions required by  
the review committee have been made.

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2017

Abstract

Development of a Guideline for Hospice Staff, Patients, and Families on Appropriate

Opioid Use

by

Trenika Alexander-Goreá

MS, Walden University, 2014

BS, The University of Memphis, 2011

Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Nursing Practice

Walden University

November 2017

## Abstract

There is an identified problem with patients receiving suboptimal pain management at a hospice agency in the northwestern United States. At this agency, undertreatment of pain is prevalent. Evidence indicates that this may be a result of a lack of guidelines, education, and knowledge of appropriate prescribing. Known barriers to the correct prescription and administration of potent opioids in the hospice setting include prevailing beliefs, knowledge, skills, and attitudes, all of which can impact care negatively. Contextually, hospice principles mandate patient comfort and caregiver involvement in continuous quality improvement, which includes adequate and informed pain management. Moreover, hospice metrics demand requisite knowledge, skills, and attitudes for optimal care, including pain management at the end of life. The Academic Center for Evidence-Based Practice (ACE) star model was used to guide the development of an evidence-based, guideline-supported educational program that will improve pain management at the hospice agency when implemented. The purpose of this project was to use transdisciplinary expertise and team collaboration to develop the program and then to conduct a formative and summative evaluation utilizing experts to prepare the guidelines and process for implementation. Ten experts reviewed the guideline, the educational materials, the process, and the evaluation plan and conducted reviews using the AGREE II tool. The panel of experts agreed within the 6 AGREE domains. Future implementation of this guideline, translation process, and evaluation tool will impact social change through the empowerment of the clinical staff, patients, and caregivers to provide the best pain control and comfort at end of life, a vulnerable time for all patients.

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## Dedication

To Mrs. Rosa Mae Anderson, 'My Grammy,' "whom heaven sent angels down and gave grandma her wings." My grandma is my latest and greatest inspiration as she would fondly, resoundingly, and clairvoyantly say I was her "Dr. Neek" in the years before her demise. Grammy would tenderly declare me to be Dr. Neek to everyone she desired to express it to all the way up until she gained her wings on 12.14.16. Grammy was persistently proud of me from as far as I could remember when she enrolled me in kindergarten at the age of four-far ahead of schedule, as she justified, "Neek you were just too smart to be at home." Decades later, my Grammy remained unwavering in her pride for me and instilled to me of this Doctoral degree, "You can do it, you will be done before you know it!" Yes, it was for the sake of my Grammy; I was able to press on and finish my degree. My DNP prestige is to commemorate the faith my Grammy had, that I would do just that, receive my Doctorate. To honor her memory, this accomplishment is a bitter sweet achievement devoted to my Grammy who forever remains in my heart. Rest in Heaven, Grammy! This manuscript is in remembrance of a few of my idols either impacted by opioids or left inspiration on an opportunity to positively influence social change: Tupac Shakur, Whitney Houston, Michael Jackson, Prince Nelson, Anna Nicole Smith, and Marilyn Monroe. This paper is dedicated to individuals across America and globally who have loved ones or have been affected by the Opioid epidemic and crisis. This publication is devoted to my beloved, deceased acquaintances of my Lamar Terrace family gone too soon and for each and every one of my unforgotten hospice patients now resting in peace. It is my hope and prayer no one dies in pain and no death goes in vain.

## Acknowledgements

First and foremost, above all, praises to an awesome God, my Savior, without whom none of this would ever be possible; Thank You, Jesus! I wish to especially thank a wonderful, awesome man of God; Mr. Tracy Goreá Sr. (aka Mr. Mom). He is one of the greatest loves of my life who exceedingly supports me in every way possible. Mr. Goreá once jokingly teased I was in an extramarital affair with Laureate and Walden! Well, the affair is all over now-we both have the last laugh, Hubby! I am forever most grateful for four of my amazing heaven-sent blessings: an accomplished, creative, gifted, gorgeous, young lady-Kelcy West my eldest daughter, mother to my one and only, pride and joy, very first grandchild, an Angel-Ethan; two intellectually gifted, outstanding, gorgeous, teens: Tracya and Tracy Goreá Jr.- whom all I adore to death! Their understandings and extreme patience were my strength to continue this feat. To two of the finest women ever on earth, Annette and my lovely Grammy, Mrs. Rosa Mae Anderson-who I forever love to the moon and back. They are my biggest, number one fans, most instrumental in all my life successes, and relentlessly rooted me on. R.I.H. Grammy! I further acknowledge the exceptional historic leadership of my role model: President Obama, who spoke, “We do not grudgingly accept but rather seize gladly, firm in the knowledge that there is nothing so satisfying to the spirit, so defining of our character, than giving our all to a difficult task.” Thank you, Mr. President; these words were so very motivating in this remarkable task! This project is homage to my Lamar Terrace Family, a project I embrace from my most humble beginnings, where my quest for social change birthed and grew. Also, I acknowledge Drs. Wilson, Palmieri, Beene, Lewis, Everett; S. Herrington for their time.

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## Section 1: Nature of the Project

### **Context**

Hospice patients indicate a fear of pain. They need a regime of pain control that provides comfort, but there are issues with pain control in the hospice setting. This project was completed to address gaps in current knowledge about pain management and the limitations of prior studies. Researchers have highlighted considerable gaps in the availability of evidence-based pain management processes concerning discreet areas of practice such as hospice (Zaccagnini & White, 2011). There is a need for an Evidence-based practice (EBP) Clinical practice guideline (CPG) for caregivers to standardize safe, effective prescription practices to improve pain management outcomes. Patient satisfaction data indicated evidence of unmet comfort expectations locally, regionally, and nationally. As a possible solution to the problem, I offered EBP guidance on the proper prescribing of opioids. Therefore, I have focused on developing a CPG for patients, families, and staff to resolve problems with inadequately controlled pain in hospice. The CPG may bolster positive social change efforts from a multidisciplinary team (MDT) collaboration approach to developing the EBP CPG. Implications for social change are in the context of data, consistent practice, education, and the need to disseminate transdisciplinary findings to benefit others.

As researchers have noted problems with pain control for hospice patients, onsite the local Deyta surveys have exposed the same problem. A CPG development is a potential solution to widespread pain control issues. Therefore, my project was the development of an organizational pain management guideline for a local hospice. Later,

the hospice site may choose to implement the CPG, which I developed using sound scientific evidence. The CPG design will ensure patients receive appropriate pain management. Also, this CPG may potentially benefit other hospice locations regionally and nationally in addressing opioid prescribing problems. For this evidence-based, theory-supported CPG, I focused on safe, effective opioid prescribing for adult hospice patients and families. Guidance materials included an educational program and professional development processes. Gaps amid practical materials as meaningful EBP guidance for practitioners and resources availability were fully addressed after the development of all the products.

### **Project Sources of Evidence**

Hospice practitioners, healthcare providers (HCPs), and patients already know uncontrolled pain exists with end-of-life care (EOLC). To further justify this project, I reviewed the literature to identify specific sources of evidence in CINAHL, PubMed, Cochrane Review of Palliative care, and Hospice organization guidelines. To address the hospice agency's challenge with pain control satisfaction, I developed consensus statements by synthesizing relevant findings from meta-analyses. The resultant recommendations translated as a CPG will intentionally optimize practitioners' opioid prescribing. Dissemination of the hospice pain management CPG to the MDT and colleagues will potentially resolve pain control issues.

### **Project Method**

Consistent with recommendations in the literature, I used a framework based on problem/patient/population/place, intervention/indicator/intended change,

comparison/current standard, outcome, and type of project—the (PICOT) model. This framework is relevant to practitioners to obtain hospice metrics for quality-of-life (QOL) and comfort. After developing the problem statement, I used the PICOT model to develop a strategic search of the literature for solutions.

I completed a review of the literature to reveal possible sources of evidence for a CPG to benefit hospice care. I also reviewed expert consensus panels, as well as experimental and qualitative studies of meta-analyses that used randomized clinical trials (RCTs) as EBP hospice care evidence. Next, I applied the John Hopkins Levels of Evidence Hierarchy to grade, rate, and assess the quality (Seben, March, & Pugh, 2016) of the articles and used EBP methodology to classify the high-grade RCTs retrieved. An expert panel methodologically appraised the theory-supported CPG by using a previously established framework.

After, gathering literature-driven solutions to develop the guidance, the panelists used the Appraisal of Guidelines for Research and Evaluation (AGREE II) framework to rigorously vet the guidance. Afterward, using proven EBP statements, I formed an EBP CPG to manage hospice pain. Practitioners at the site will be able to use this CPG as a source of accurate information on the best practices for prescribing opioids in EOLC for adults. Palliative care, opioids, and hospice were primary query terms. I chose the AGREE II instrumentation as the framework for the formative assessment of critical dimensions of the developed guidance.

It was imperative to use the AGREE II framework as the principal evaluative tool to appraise the evidence applicability and gauge whether the evidence base ensures

guidance addressed the clinical state of hospice circumstances. Furthermore, the World Health Organization (WHO) Analgesic Ladder framework and Prochaska's change model was conceptually relevant to understand the hospice philosophy of care. A Quality and Safety Education for Nurses (QSEN) consultant instructed the hospice guidance learners on how to obtain satisfactory mastery of pain management principles. The QSEN consultant integrated the ACE star model of knowledge translation to reinforce educational tasks with theoretical concepts to optimize opioid prescribing mastery.

### **Project Pathway**

The purpose of this project was to address known gaps in pain management experienced by adult hospice patients. To achieve this goal, I developed a CPG, educational materials, an implementation process, and long-term evaluation planning based on theory and evidence. Through a formative and summative evaluation of the developed resources, an expert panel accepted a package of evidence. The evidence-based, theory-supported pain management CPG resources I developed are for Northwest Hospice Center (NWHC) adult patients.

Ultimately, a measurable, readily available CPG appeared to reach and exceed current standards. An onsite CPG positively affects safe pain outcomes for quality opioid prescribing in hospice EOLC. In a structured manner, this capstone project served as a platform to address a long-standing hospice issue and to offer EBP-proven solutions. The QI culminated in clinical guidance addressing possible gaps in knowledge and hospice practices. The agency's mission, strategic vision, and hospice philosophy were fundamentally upheld as guidance resources became available to address practical gaps.

I presented a finalized product to the hospice organization's MDT to implement as a trans-disciplinary approach. Thus, by design, the resources have applicability and transferability across all health care settings. The MDT of colleagues and stakeholders collaborated on major QI goals towards advancing EOLC. Transdisciplinary collaboration was imperative because inadequately managed pain and inappropriate opioid administration are urgent, critical social issues. Thus, the collaborative team initiative ultimately benefits society as stakeholders partook an effort to resolve a social issue.

The CPG I have developed, and the ideas I applied in the process will advance society as a whole and therefore support Walden's mission. The hospice's organizational improvements from the project may help to address various pain and systemic societal issues. Hospice as a modern social movement seeks to change the individual experience of dying, as well as the nature of death and dying for society (Lander, 2017). Thus, the resultant EBP CPG aims to promote societal change on an organizational, regional, national, and global scale.

**Project introduction.** In 2014, an estimated 1.6 to 1.7 million patients received hospice services (National Hospice and Palliative Care Organization [NHPCO], 2015b). Positive social change with pain management can manifest starting at the local facility, beginning with adequately serving the community's families and individuals' EOL pain control needs. The NWHC, the project location, provides services in various home-based settings within the local community. The goal of the capstone project was to inform providers of relevant, significant, innovative opioid prescribing for quality patient care.



Practitioners caring for terminally ill individuals in the northwestern United States are in dire need of an EBP CPG to address pain control. The CPG that I developed for safe, effective pain control provides caregivers practical guidance on relevant pain control concepts to achieve quality outcomes. Nationwide, the hospice community has grown substantially over the past decade in the number of hospice patients served (NHPCO, 2015b); therefore, EBP materials are a necessity for hospice practitioners.

**Background.** The growing EOL movement has spanned over two decades, and national attention is increasingly focused on QOL (NHPCO, 2015a). However, social factors continue to play a role in inadequately managed pain, affecting over 50% of older persons in communities (Hadjistavropoulos, 2012). However, researchers have long established that optimal pain control is a wish and preference of patients in the terminal phase of life (Stajduhar & Coward, 2012). With advances in science, QOL has improved across the life continuum, individuals have increased productivity in societies, and suffering is reduced (Zaccagnini & White, 2011). Hospice patients can require the prescription of strong pain relief, which only opioids may provide. Practitioners can resolve pain issues best with evidence-based, practical resources. Hence, with EOLC, there is a need for increased public awareness and practitioner education (NHPCO, 2015a).

In hospice care, there is an emphasis on dignity, comfort, and pain management. Hospice is a concept of care for those with a life-limiting illness no longer responding to curative measures. When the restoration of health is futile, an election of hospice care places a focus on the highest possible quality of remaining life and assuring comfort—a

hospice metric. Holistic care is given to the person and entire family to meet goals (NHPCO, 2015b). The hospice approach allows a natural, peaceful, dignified death with patients fully supported by families, friends, the medical community, and society in general (Thiroux & Krasemann, 2012). Patients and caregivers are at the center of the hospice team.

At NWHC, patients' needs are the care drivers. Thus, industry benchmarks and internal targets are used to monitor services related to comfort. Striving for comfort within 48 hours is a hospice metric. EOLC standards recognize comfort goals, and at the patient level, aim for quality improvement (QI). The NWHC site uses the Deyta Patient Survey (see Appendix B) hospice tool as it contains indicators to measure comfort, satisfaction, and QOL. As the Centers for Medicare & Medicaid Services (CMS) is a primary payer for reimbursement of hospice services, Deyta gathers, analyzes, and reports data as required per CMS regulations. Deyta offers benchmarking insight to hospice services for incorporating ongoing quality assurance performance improvements (QAPI). Amid "verbatim comment reporting" (Deyta, 2017) and patients' admission statuses, NWHC monitors and tracks pain status measurements regarding comfort metrics and the negative patient feedback using the Deyta survey tool. As NWHC is not adequately meeting patients' pain control needs, it is a feasible location to develop solutions for factors linked to the CPG uptake.

**Problem statement.** The problem is a lack of EBP resources for practitioners, contributing to poorly managed pain in delivering EOLC services to adult hospice patients at NWHC. The Deyta survey documentation was the supportive evidence of the

pain issues. In the elderly patients over 50 years of age at NWHC, the survey documentation reinforced a dire need to improve pain control. At the hospice site, the unsatisfactory Deyta survey data alarmingly suggested opioid prescribing was problematic for practitioners and lead to patients' poorly controlled pain.

NWHC performed poorly during the first two-quarters of 2016 based on unsatisfactory figures with pain control. Deyta documentation contained disappointing feedback regarding pain management. Data documented from the survey revealed an emergent failure with quality control. Some of the areas of failure included pain management, continuous education on hospice metrics, and of ability to meet mandatory requirements as standards of care.

In the pain management category, the Deyta survey indicator questionnaire revealed poorly managed pain, showing a 90% dissatisfaction rate with comfort. Regarding satisfaction with comfort obtained within 48 hours, 90% of clients expressed "No" when asked, "Was education provided on hospice medications?" The survey contained other pertinent *yes/no* questions in the Attend to Family Needs and Treatment of Symptoms categories (see Appendix B). An EBP CPG may improve metrics at the site.

The preliminary Deyta documentation indicated hospice staff issues with opioid prescribing. Transcribed comments from the Deyta questionnaire showed a correlation between prescribing issues to patients' dissatisfaction rates with comfort services. With evidently frequent problems with a pain control identified by significant dissatisfaction

pain management rates, the Patient, Intervention, Comparison, Outcome (PICO) framework applied to the project.

The PICO that I formulated to facilitate a literature search for sources of evidence containing solutions to the hospice's pain problem is as follows:

**P-Adult Hospice Patients**

**I-Strong opioids as safe and effective treatments for pain control via guideline.**

**C-Comparison of actual patient outcomes to the desired quality outcomes.**

**O-Quality patient care as indicated by 100% patient satisfaction with comfort, pain control, and knowledge (Hospice metrics and hospice industry benchmarks).**

The hospice agency's problem was caregivers' lack of EBP resources, which had caused failures to maintain quality for comfort services. Due to the unavailability of EBP guidance, the organization was not providing these patients with optimal pain management. An EBP CPG was needed onsite to inform quality care. The EBP CPG was a necessary standard to achieve excellent pain control levels as desirable outcomes in the final phase of life. Therefore, resources needed to be available through an EBP program to assist practitioner prescribing at the local facility. The unmanaged pain problem and solutions are relevant to providers across disciplines aside from meaningfulness towards continuous quality improvement (CQI) in the local setting.

***Local relevance and practice environment.*** The Deyta survey feedback had local relevance regarding the improvement opportunity of a 90% dissatisfaction rate with comfort measures. At the very least, adverse Deyta data represented an unacceptable

short-term problem in maintaining the hospice philosophy of care. Thus, it is relevant poor pain control results are integrated and developed into resources to improve practitioner competencies regarding opioids. From the measures of caregiver satisfaction data identified, the opportunity to improve pain control lead to best practices for a reliable, expected standard of hospice care.

Hospice is a model of quality care for individuals with life-limiting illness. Despite this, all too often, hospice patients risk receiving ineffective pain management (NHPCO, 2015a; WHO, 2014). This statement paralleled the organization's problem. Currently, the survey highlights failures with providing training, education, and inaccessibility to necessary knowledge, skills, attitudes (KSA) competencies required with EOLC. As the current analysis of clinic data mirrored a national issue, the potential for suboptimal care was quite concerning. An opportunity was available to address this gap in practice with the availability of training materials. Quality comfort outcomes required a standardized method to educate caregivers on opioid drugs, as opioids are typically used as first-line in hospice to obtain patient comfort. The CPG contributed to better pain control at the agency by offering EBP pain management solutions on site for practical use. Practitioners needed a CPG focused on relevant research and implications with opioid prescribing in clinical practice.

*Significance and implications for nursing practice.* Research has shown that the undertreatment of pain is a significant clinical problem (Bramadat, 2013). The significant implications and primary goals of hospice care are reaching quality measures and sensitive indicators nationally. A decrease in QOL is a sensitive indicator and is key in

determining the type of care received by patients (White & Dudley-Brown, 2012). The objective of EOLC is to maximize comfort for dying patients in the hospice setting. Patients desire minimal pain and no suffering from professionals entrusted (National Institutes of Health [NIH], 2015) with opioid prescribing to manage pain. Hospice practitioners are concerned with peaceful outcomes, hospice metrics, and standards of care for persons at the end-stage of life trajectory, and essential KSA competencies. KSAs aimed at sensitive quality indicators have a potential to close gaps in EOLC.

The American Association of Colleges of Nursing (AACN) published “Peaceful Death” in which it outlined competencies as core curricula for providing quality EOLC (Workman, 2016). Current evidence-based knowledge on effective and safe prescribing of strong opioids using pain control principles holds clinical significance in EOLC. Thus, informing health care providers on pain management KSAs is an American Nurses Association (ANA) mandatory standard of care for caregivers and relevant to the practitioner’s education as a hospice metric. Teaching must consist of clarifying and resolving barriers to pain treatment, such as tolerance, fears related to addiction, a lack of awareness of regulatory compliance standards, management of side effects, opioid titration of doses (Hayes, 2013).

Obtaining optimal pain control in a QI initiative within the DNP project is also significant because the ANA (2016) holds providers accountable to a high standard with pain management. Inadequate pain control may represent a neglect and failure to meet an obligation and denies fulfillment of a patient’s needs. Unrelieved pain has severe negative consequences on QOL (Bramadat, 2013). An MDT approach may promote the

delivery of quality care that facilitates optimal outcomes with prescription opioids. The CPG filled a gap in the literature regarding opioid prescribing and the implications for best practices. The effectiveness and safety aspects of the CPG were properly assessed and appraised for applicability to practice and evidence-based relevancy.

***Purpose statement.*** The goal of the project was to systematically develop a relevant CPG to help practitioners adequately manage pain and avoid outcome failures with opioid prescriptions. Specifically, the CPG was intended to help caregivers achieve quality patient care and satisfactory results with EOLC services. Additionally, an EBP CPG and educational effort for hospice professionals, patients, and families were focal points of the project. An expert panel formatively evaluated the CPG to help ensure that patients purposefully receive adequate pain control and comfort care at the local hospice. The CPG allowed frontline practitioners to prescribe opioids to patients effectively and safely.

Subsequently the developed CPG I designed purposefully targeted hospice adults by incorporating patient feedback, educate individuals on KSAs with opioids, and emphasized MDT collaboration. Thus, with the CPG, positive outcomes with comfort were more likely at the local hospice site despite existing gaps in practice. The purpose of the CPG was to comprehensively address the prescription of opioids for pain control to achieve quality EOLC standards. Accommodating patients' preferences for adequate pain control were purposefully fulfilled as the five critical domains of patient care within the CPG. In developing the CPG, I purposefully addressed the unavailability of scientific resources, which is recognized as a meaningful gap in practice.

### **Meaningful Gap-In-Practice**

The Joanna Briggs Institute publicly emphasized that there should be more resources available in hospice practice. The Briggs Institute has publicized that it favors initiatives that produce hospice-specific guidance to account for gaps in resources and practice. An obstacle contributing to the hospice agency's problem with controlling pain is that caregivers lacked a CPG that informed them of quality EOLC. EBP resources had to be accessible to achieve the desirable outcomes of excellent pain control levels in the final phase of life. The EBP CPG materials intervened with competency teachings on KSAs to meet expected quality pain management outcomes once implemented.

At the hospice site, meaningful gaps lie between the ideal and reality. Gaps existed in what practitioners actually were doing and what really should be performed when prescribing patients opioids. The project bridged the gaps in EBP practice resources and knowledge. An educational program for clinicians, patients, and families will address potential barriers learners may encounter with implementing the CPG. The educational guidance resources developed clarified concepts, resolved learners' obstacles, and countered barriers to adequate pain treatment. The training materials bridged the learning gaps on associated pain concepts such as: addressing fears related to addiction, tolerance, awareness to regulatory compliance standards, management of opioid side effects, and titration of opioid doses prescribed (Hayes, 2013).

As a practical resource, the EBP CPG activities counteracted identified barriers and gaps by intervening with teaching KSA competencies and appropriate prescribing. The Agency for Healthcare Research and Quality (AHRQ) National Guideline



Clearinghouse (NGC; 2016) was useful in developing the quality CPG. Upon implementation of the EBP CPG for pain management, AHRQ resources help assured expected quality outcomes. The guidance serendipitously covered national pain management issues as well. The CPG applicability was due to the transparency of resources, rigorous EBP processes, and resolute activities to develop the agency's guidance.

### **PICOT Question**

The DNP project question is as follows: How would the development of an EBP CPG with professional education influence the pain management practices to improve pain control for patients in an EOLC program at a hospice center?

The PICOT question elements were:

**P** – Problem / Patient / Population / Place: Patients at the end-of-life, self-reported poor pain control, home care program provided by a hospice center.

**I** – Intervention / Indicator / Intended change: Evidence-based clinical practice guideline with staff education.

**C** – Comparison / Current standard: Pain management without a clinical practice guideline.

**O** – Outcome desired: Decreased patient-reported pain and increased patient satisfaction.

**T** – Type of project: Clinical practice guideline development with professional education for the implementation.

The optional T in PICOT was useful to help with the determination as to the type of project I would pursue for the question I sought to answer.

### **Project Objectives**

The guiding practice-focused question is the following: Does evidence support the development of an EBP CPG that addresses patients' pain management in a hospice program? To solve hospice pain control issues, I focused the project on developing an EBP CPG with a professional education program for practitioners, patients, and families. The guidance addressed identified gaps in scientific knowledge. KSAs and a QI effort aiming for excellence offer a tremendous measure of retainable comfort with EOLC. Once practically implemented, the specific aim of the EBP CPG helped caregivers achieve quality standards for pain control in EOLC. The project objectives ensured that patients at the local hospice received adequate pain control and comfort care.

The aims and objectives of the Capstone QI project were as follows:

1. Develop an EBP CPG from sources of evidence accepted through a formal review by expert panel members.
2. Present EBP educational materials for formative evaluation and acceptance by an expert panel.
3. Obtain approval of an EBP implementation process constructed for formal evaluation that is also accepted by expert reviewers.
4. Establish a long-term evaluation plan based on theory and evidence to meet goals such as the following:

- a. Reduce response time for pain control to less than 48 hours when ordering pain medications for 100% of patients with pain greater than 3 (on the 0–10 Wong-Baker pain scale) (Wong-Baker Faces, 2016).
  - b. Increase completion of caregiver education training modules to 100% participation in at least 90% of the training sessions, two of which must be the first and last sessions.
  - c. Increase the percentage of satisfactory responses measured by the Deyta Patient Survey from 10% to 90% over a 6-month duration, with a goal of 100% within a year.
5. Acquire acceptance of the entire package of evidence from expert reviewers through a formative and summative evaluation.

### **CPG Objectives**

- 1) Establish an evidence-based universal CPG for hospice practitioners.
- 2) Consider resolutions to potential barriers to developing the CPG, such as time, staff skill, adoption, resources, the organization's interest, translation, and dissemination.
- 3) Perform a windshield survey to appraise the hospice community's resources.
- 4) Utilize a Gantt chart to meet objective deadlines and assist in developing CPG activities.
- 5) Address the significance of including representatives from the target population with stakeholders involved in the planning process.

- 6) Involve providers, families, and patients directly in developing the CPG to overcome barriers and enhance patient satisfaction with pain control care.
- 7) Consider costs, acquisition, and social aspects of an under-served hospice population concerning the opioid class of drugs with developing the CPG.
- 8) Develop processes based on scientific literature to educate providers on the CPG.
- 9) Incorporate practitioners ability to demonstrate cultural competency related to pain and pain management addressed through professional development training.
- 10) Implement educational planning and offerings using EBP sources such as the EOL Nursing Education Consortium (ELNEC) and QSEN to link meaningful constructs with developing the CPG for adult hospice patients.
- 11) Use the ACE star model to link relevant theoretical concepts to the CPG.
- 12) Use the EBP “FOCUS” strategy to guide the hospice practice adhering to regulatory standards set forth as TJC goals for quality care to develop the CPG.
- 13) Use TJC’s pain issuance standards on safety, quality, and the hospice patient’s right to pain management when developing effective pain control guidance.
- 14) Refer to AHRQ QI initiatives to aid and develop a standardized institutional educational guideline
- 15) Align the CPG with Medicare hospice COPS established regulations.
- 16) Include ANA standards in the CPG QI effort for correct opioid prescribing.

- 17) Consult the NHPCO in the furtherance of the CPG for practitioners and feedback from the MDT of colleagues.
- 18) Address associated pain concepts with the CPG developed.
- 19) Comprehensively cover alternative opioids prescribing methods to manage pain.

**Response to the gap-in-practice.** Guidance developed for better pain management centered on improving EOLC and expanding hospice knowledge towards a goal of the same. At the home-based hospice facility, there were identifiable factors related to prescription opioids, pain management, education, and limited resources. EBP knowledge was necessary to reduce gaps in resources as well as enhance KSAs. HCPs must have an attitude of respect and awareness and be skilled at handling sensitive issues (Hayes, 2013).

The DNP project was a platform to present guidance for a peer review of an EBP CPG that offered caregivers attitudes of reassurance with opioid prescribing. The entire agency benefited when guidance on current best practices for prescribing was available. NHPCO is a non-profit, national organization for hospice programs and professionals (NHPCO, 2015b). Thus, NHPCO resources guided collaborative interdisciplinary team (IDT) efforts. KSAs aimed at sensitive quality indicators have the potential to close gaps in EOLC.

**Stakeholder analysis.** Stakeholders from relevant professional disciplines had representation through the MDT with developing the CPG. The CPG appraisal required a formal panel of expert reviewers. The expert panel of stakeholders was the necessary

convenience sample of participants required for sufficient resources to develop the CPG. The professional colleagues, group process leaders, and IDT and MDT members contributed to developed materials with a wide range of skills as clinical health services researchers. These groups of stakeholders formed the formal committee to offer interdisciplinary feedback on the CPG.

Confidence with participatory feedback has potential impacts such as fear of retribution from senior administrative management. Obstacles may occur as stakeholders express perceptions and understandings of pain control. Diversity barriers concerning pain management may be a hindrance because individuals differ considerably on opioid and pain issues. However, barriers may be overcome by just agreeing to what is known and proven in the evidence. It is known that individual pain experiences are highly subjective. In EOLC, the IDT has stated that a hospice patient's report of pain is the only confirmation required for its (pain) existence. In the latter phases of guidance development, sources of evidence were sought to validate the best pain control approaches to resolve stakeholders' opposing views.

The final product from the project served to educate the organization's stakeholders. The CPG informed providers, caregivers, and patients alike on opioid prescribing for comfort measures. Within the hospice specialty, there are routine concerns about available up-to-date resources. There is an overall need for EBP data that enhances care. A purposeful CPG was established to benefit all stakeholders and patients alike. Terminally ill patients benefited in the form of safe, effective, and quality EOLC.

*Potential contributions to nursing practice.* The CPG contributed to the unique practice of caring with marked impacts by allowing full expression of the hospice role to fill systemic gaps in resources needed in EOLC. Establishing this hospice guidance contributed to improvements in hospice practices that has versatility that may be modeled in all settings. Pain control materials contributed to evidence-based nursing practice (EBNP) through a problem-solving design. A conceptual analysis of EOLC contributed to nursing practice from a component of the CPG, the inquiry of understanding the hospice philosophy of care. The CPG provided essential knowledge of opioid prescription practices to hospice practitioners. With particular concern for opioid prescription factors affecting hospice, solutions from broader realms of scientific and theoretical thought contributed to the body of nursing knowledge. By offering evidence-supported pain control guidance, overall, the CPG contributed to nursing by connecting theory and practice. The contribution of EBP scholarship and body of knowledge for forming prescribing guidance was so necessary for practice and transdisciplinary growth.

**Transferability of knowledge.** The CPG design contributed to improved comfort outcomes beyond the local hospice site in many ways. The local agency had an IDT to represent numerous disciplines with several professionals involved in the patient care. This diverse hospice staff had physicians, hospice home health aides, social workers, chaplains, physical therapists, occupational therapists, speech-language pathologists (SLP), registered dietitians, registered nurses, nurse practitioners, and nurse case managers involved in the care of patients and families. The hospice IDT offered a wide

range of services from a holistic approach, and therefore, feedback was applicable on a transdisciplinary platform.

Inclusive gathering of significant data from the IDT enabled implementation of culturally congruent care across several disciplines. Cultural pain may occur when providers overlook patients valued way of life. The MDT will overcome barriers associated with views of pain problems. Comprehensive IDT input positively influenced systemic pain barriers related to beliefs, practices, and values. The MDT holistically contributed to developing the pain control guidance through multidisciplinary input that informed value care. The motivation of the IDT was crucial to the success of developing the CPG for individuals, families, and communities.

Engaging various fields in a collaborative QI effort increased transferability of the CPG for prescribing opioids beyond hospice practice. Knowledge may transfer across disciplines to MDTs as a result of the various professionals of the IDT who consulted on pain control barriers and social inequities with EOLC. Unmanaged pain is a critical social issue. Myths may be commonly magnified when related to opioid prescribing in hospice settings, further contributing to social problems. The social barriers with opioid prescribing served as an incentive for me to achieve major QI goals. I ultimately assumed a transdisciplinary approach to advance EOLC for the greater good of society.

### **Implications for Positive Social Change**

Across disciplines and healthcare settings, in general, pain is undertreated for various social reasons. It is also widely known opioid prescribing affects communities nationwide. At the hospice, patient comfort was a high priority and social responsibility.



The impetus for social change was advocacy and socio-political justice for a vulnerable hospice population. Practitioners are to question reasons pain control issues exist and be willing to scrutinize practices for clinical proficiency. Society's inquisitive conversations about life and a dignified death are defining moments representing the modern hospice movement. Modernized protocols with EBP resonated with practitioners as the developed CPG informed appropriate opioid prescription practices for pain control.

The project supported Walden mission by offering expert knowledge based on sound scientific research. This project was an opportunity to promote practitioner use of academic knowledge to effect positive social change through research. As a contribution to society, the project positively impacted EOLC for patients within the hospice community and beyond. As hospice patients face social disparities, the data and disseminated findings impacted social change by broadly informing healthcare decisions, EOLC practices, and social justice policy.

The CPG on pain management addressed positive social change because, as sociologist Anthony Oberschall (2017) argued, with social change, there must be an organizational basis. Resolving this hospice issue of patient dissatisfaction at the hospice organization in the local community contributed to fixing aspects of the broader social problem with comfort care. This project allowed a potential for NPs to influence societal changes that may occur locally and progress at the regional, national, international levels.

### **Summary**

Pain is not well managed nationally as evidenced by the Joanna Briggs Institute, which cites major gaps between available resources and actual practice. Locally, there

had been a longstanding issue with quality EOLC, concerning adequate comfort measures for hospice patients. As topics on opioids are scrutinized more heavily now than ever (National Institutes of Health, 2015), efficient prescription solutions to mitigate pain in EOLC was a pertinent issue to address. Improperly managed pain is significant as major gaps in EOLC necessitate urgent attention from multiple stakeholders.

At NWHC, an identified problem was insufficient pain control for hospice patients. Resource availability was clearly a prime factor in the agency's pain management problems. Frontline providers lack the KSA resources required for sufficient pain control. The absence of resources was an obstacle to the satisfactory accomplishment of patients' comfort goals at NWHC. As the pain control problem hindered the achievement of goals uniquely established by hospice patients, solutions were relevant to the profession and HCP across disciplines.

An initiative needed to be undertaken to offer guidance purposefully. An EBP CPG was a meaningful solution intended to help the facility's practitioners best manage pain. The QI project purposefully centered on hospice metrics to develop a guideline for appropriate, safe, and efficient prescription of opioids as a standard of care. The overarching aim of the QI project was to produce an EBP CPG that significantly reduces adverse pain experienced by hospice patients.

Goals of the project were to overcome barriers with EOLC competencies and potentially contribute to narrowing gaps in practice. Quality EOLC is meaningful in the context of federal regulations, local mandates, and agency protocols. The EBP CPG standardized pain control practices across the board for consistency with opioid

prescribing in EOLC. This contribution of new knowledge does not only relate to the hospice care field. The manner in which I designed the guidance transfers outside of hospice and is applicable in all healthcare settings. Awareness of EBP at the hospice site with a CPG also has exponential benefits that transfer across multidisciplinary specialties.

Transferability of the guidance was necessary as social issues with opioid prescription and pain management are well documented. The collaborative team of hospice experts and professionals formally engaged in feedback to produce evidence-based practical solutions. As perceptions about EOLC may vary considerably across culture, educational backgrounds, and status, etc., there are societal gains by offsetting costly regimens from incorrect or insufficient data on EOLC.

The EBP CPG I developed significantly improved KSAs and aimed for therapeutic patient outcomes by removing prescribing barriers to advance EOLC. Also, the guidance produced resulted in a standardized guideline. The purpose of the CPG was optimal comfort from the best methods relevant to prescribing opioids. The developed hospice materials on correctly prescribing opioids easily cross over to benefit other disciplines and societal change.

To best effect social change with the CPG, it was appropriate to analyze multiple sources of evidence as literature solutions. Literature-driven recommendations are the most appropriate sources to consult for EBP on proper opioid prescribing. Using solutions I retrieved from the literature; I developed consensus statements into an EBP CPG on pain control for adult patients. The CPG was to target hospice patients receiving EOLC in community settings. Since outcomes of the CPG affects various populations,

settings, and disciplines, a systematic review of the literature underpinned the guidance recommendations. Thus, I consulted studies from other professions—medicine, psychology, gerontology, and social work—to develop EBP guidance. Exclusion criteria included several systemic analysis publications of articles unavailable in the English language. Exclusion criteria also mattered when searching for current, accurate, and general articles in a scoping review of the literature.

Performing a scoped literature review was to obtain the highest level of evidence for appropriately managing pain with hospice adults. I needed to center the project on sound quality evidence. I used the scientific literature as sources for data about the issue of inadequate pain control for terminally ill individuals. Thus, I consulted multiple scholarly databases in a search for high-level systemic reviews for appropriate measures to address aspects of opioid prescription.

## Section 2: Background and Context

### **Introduction**

At NWHC, I identified the practice problem of inadequate pain management, primarily due to lack of EBP materials. In the absence of an available protocol addressing a consistent method for prescribing safe and effective opioids, an EBP CPG needed to be established. For the developed PICO question, I conducted a literature search for methods to apply outcomes for safe, effective opioid prescription solutions. These solutions needed to align with this practice-focused question developed from the PICO (T) process:

How will a developed EB-CPG affect hospice patient reports of discomfort to control pain for adults receiving EOLC?

The PICO query addressed the availability of EBP resources for pain problems due to gaps in proper opioid prescribing and adequate pain relief for hospice patients. The purpose of the project was to develop an EB-CPG to standardize practitioners' prescription of opioids for elderly hospice patients. The CPG was intended to improve IDT and MDTs' prescribing competencies in addition to effecting social change. The CPG I developed presented the best manner to control pain with strong opioids. After the CPG acceptance, I developed educational materials. Training was intended to provide an evidence-based process for frontline practitioners' adoption of guidance, materials, and resources.

The literature review aimed to retrieve published evidence that systematically answered the PICO question. The PICO answer served as a part of the solution to the problem and as a primary tool for developing the CPG. I conducted a meta-analysis of

scientific evidence from meta-analyses and systemic reviews primarily to develop the CPG, materials, and processes for quality EOLC. In developing the EBP CPG, methods, and materials, I searched the literature indexes for scholarly theories, EBP concepts, and models.

### **Concepts and Models**

Ample research supported the PICO (T) model. The PICO framework helped with the formulation of quality hospice objectives. The PICO format yielded relevant concepts, hospice metrics, and QOL outcomes beneficial to practitioners. I searched the literature systematically to locate sources of EBP for hospice care. To grade the peer-reviewed research literature that informed best practices for the hospice guidance produced, I selected the Johns Hopkins EBP model and applied it to rank evidence levels from I to level V. These levels, according to Seben, March, and Pugh (2016) are as follows:

- Level I: Meta-analysis of RCTs; experimental studies; RCTs.
- Level II: Quasi-experimental studies.
- Level III: Non-experimental or qualitative studies.
- Level IV: Opinions of nationally recognized experts based on research evidence or an expert consensus panel.
- Level V: Opinions of individual experts based on non-research evidence (e.g., case studies, literature reviews, organizational or personal experiences).

Using the John Hopkins EBP model, I found five Level I, one Level II, two Level III, two Level IV, and five Level V sources.

Quality hospice care is multifaceted. It encompasses five domains of patient care (Stajduhar & Coward, 2012): physical, functional, spiritual, psychological, and social. It includes not only patients but their families as well. As defining features of a practitioner approach to hospice care as well as support for the principles and philosophy of hospice care, the CPG guidance reflected dimensions of the Quality-of-Life model.

As the CPG was evidence-based, I needed a sound tool to appraise it. Within the scholarly databases, numerous researchers recommended AGREE II. I, therefore, selected AGREE II as the principal tool to assess crucial dimensions of the guidance to ensure that it thoroughly addressed the current clinical state of hospice circumstances. In also, following the recommendations in the literature, I selected the ACE model to integrate educational tasks involving EBP theoretical concepts with opioid prescription practices.

Conceptually, an ELNEC consultant helped learners master pain management principles using QSEN reinforcement, Prochaska's Change Model in piloting, and the WHO analgesic ladder. In the general literature search, I retrieved A Comparison of the WHO Model List of Essential Medicines and the Lothian Joint Formulary scholarship provided by the National Health Service (NHS) Lothian (WHO, 2017).

### **Theories and Seminal Scholars**

Patricia Benner, a seminal scholar who devoted much of her professional life to studying nursing issues, revealed theory-based solutions (Chan, Benner, & Brykczynski, 2010). Benner's novice to expert theory related teaching KSAs, QI educational initiatives, and the doctoral capstone methodology to innovative nursing pedagogy. The

Dreyfus model of skill acquisition (McEwen & Willis, 2011) added value to evaluating caregiver knowledge acquired, to narrow gaps between practice and experience.

Researchers plentifully noted clinical decision making (CDM).

However, I chose AGREE II as the appraisal tool to help the expert panel evaluate my developed protocol. The CPG that I derived from AIM statements based on the literature review targeted hospice patients along the EOLC trajectory. The AIM statements helped ensure that protocols developed for practitioners covered AGREE II domains in the appraisal phase. Supported by evidence from the literature, the AIM statements targeted areas of improvements for an adequate opioid prescription. Findings from the literature review served as quality indicators and centered on monitoring the effectiveness of services. The AIM statements allowed components of the CPG to develop theoretically and conceptually relevantly.

### **Definition of Conceptual Terms**

*Analgesic:* A medication that may relieve pain, for example, opioids like Morphine, Codeine, or Oxycodone (Venes & Taber, 2013).

*Analgesic ladder:* The WHO framework for treating pain, where the patient is treated first with anti-inflammatory analgesics, such as ibuprofen, or mild or non-narcotic pain relievers, such as acetaminophen. A patient may be ultimately treated for pain with increasing strengths of narcotic analgesics if anti-inflammatory drugs or adjunctive therapies do not alleviate pain (Venes & Taber, 2013).



*Caregiver:* An individual assisting a (terminally) ill person in an environment the individual resides. For the purpose of this manuscript, the term carer also refers to individuals involved with the patient's care.

*End-of-life (EOL):* The end of a normal life cycle. It is a phase on the continuum of care, the end-stage, the final phase of a disease process (Stajduhar & Coward, 2012) an acceptable death, also known as a good death imminent.

*EOL (hospice) care (EOLC):* defined by adequate pain control, minimal suffering, and the absence of trauma, which leads to peaceful deaths. The IOM has undertaken major initiatives towards outcomes facilitating a good death to improve EOLC (Workman, 2016).

*Hospice:* Both a system and philosophy of care. It is a program (WordPress, 2011) that specializes in care in which attention is given to fulfilling the needs of patients with a limited life expectancy at the EOL. Hospice focuses on comfort rather than cure. One of the main goals of hospice care is helping patients live comfortably and to help the family support the patient as they are transitioning with outcomes to facilitate QOL and a peaceful death. An IOM report offers three definitions, first described as a discrete site of care. Secondly, hospice is an organization that provides and arranges for services to patients in homes or other settings. Thirdly, hospice is an approach to care for dying patients based on metaphysical, spiritual, social, and clinical, social, and principles (NCHPC, 2014). The principles of hospice include providing care to a whole person along with the entire family, placing the patient and caregiver at the center of the hospice team, educating, and providing comfort when cure is no longer possible for terminal

illnesses (Workman, 2016). IDT members provide regular visits for care and assess for additional service needs. Hospice staffs are on call 24 hours a day annually.

*Pain:* As the International Association for the Study of Pain (IASP; 2015), defines it as an unpleasant emotional and sensory experience arising from potential or actual tissue damage; it not only is a perception of painful stimuli, but also a response to it. The hospice approach recognizes that pain is a complex phenomenon that involves the mental or emotional, the social or sociological, and the spiritual or religious aspects of patients as well as the physical (Thiroux & Krasemann, 2012).

*Pain control:* Comfort defines pain control. Comfort is relief obtained from the administration of treatment strategies and other interventions to manage discomfort. At the hospice site, the patients determine an acceptable level as their pain goal. Pain control and obtaining comfort are defining features of the hospice philosophy of care with principles to maintain QOL (Thiroux & Krasemann, 2012). Once pain is seen for what it is, a preventive rather than a reactive approach to pain control should be used. For example, once a terminal cancer patient begins to suffer pain, the method of pain control should not be to wait until the moment the pain returns, thus “reacting” to the pain symptoms (Thiroux & Krasemann, 2012); rather, the patient’s pain should be prevented from occurring.

*Terminal illness:* A life-limiting medical condition, a final, fatal illness, in which a person has been certified to have a life expectancy of fewer than six months.

**Project relevance to nursing practice: broader issues and scholarship.** The Capstone had relevance to inform practice, EOLC, healthcare policy, and society. In

2015, 35% of Americans were prescribed opioids (American Association of Nurse Practitioners [AANP], 2017). The profession has ethical, professional, and social responsibilities to remain informed on issues of correctly prescribing opioids. Therefore, it was relevant practitioners receive KSA education for safe, effective prescribing of opioids as EBP guidance. The EBP CPG addressed a need for available resources for the organization, public, and profession.

As an overall societal problem existing with quality EOLC (NHPCO, 2015a), the local measures of patient dissatisfaction with pain control coincided with widespread issues. Awareness must be provided concerning solutions to pain management issues. Awareness in practice on opioid prescribing was necessary concerning society, legislation, regulations, and policy that affect EOLC. ACE was the model to guide educational offerings and evaluation of learning. There is a local and national need to satisfy hospice patients with therapeutic pain relief services concerning the broader practice problem in which the QI project is embedded.

*Scholarship on broader issues.* Speaking to the broader issue, scholarship by Hall (2013) read knowledge, experience, and expertise should be gained with opioids and after that, prescribe strong opioids where possible. Forbes (2016) said more data and KSAs are required to counter myths or beliefs held on opioids in society. Nationally, the overall management of pain does not meet quality standards (Institute of Medicine of the National Academies [IOM], 2012). As global pain management issues are hindering quality comfort measures (Brennan & Bakken, 2015), currently, there is a need for standardized, informed opioid prescribing (Bramadat, 2013).

*Current state of practice and recommendations.* A current awareness to pain control problems existed in ample theoretical sources. Most studies highlighted knowledge and skills are continually lacking or not present concerning EOL, pain, and prescription analgesics (Al-Shaer, Hill, & Anderson, 2011). Articles noted there are still persistent misconceptions related to opioid use, addiction fears, and frequent underestimations of pain and interventions tailored to meet learner needs (Al-Shaer, Hill, & Anderson, 2011). Others studies placed a current pain control focus on changing hospice patients and caregiver's KSAs as cited by Al-Shaer, Hill, and Anderson (2011).

Unmanaged pain concerns in EOLC are known nationally. With the facts concerning problematic, inadequate opioid prescribing to sufficiently control pain at the local setting highlighted, an issue significant to a broader field beyond hospice practice existed. Nationally, there is a need to develop more up-to-date educational opportunities and clinical pathways.

**Recommended current practice improvements.** More current CPGs were needed and recommended for QI in EOLC with opioid prescribing. Moynihan (2015) advises combining nonpharmacological strategies with analgesics. Additionally, scholarly sources indicative of the current state of issues strongly advised adjunct therapies for pain management in hospice. Two level I articles by Chang, Bijur, Lupow, and Gallagher (2011; 2013) asserted approaches to uncontrolled pain variability requires frequent dosing of prescription opioids, with adjuvant analgesics such as antiepileptic drugs, antidepressants, and local anesthetics enhance care.

The John Hopkins model classified the current findings, as AGREE II appraisal validates guidance resultant of the evidence findings. The National Institute for Health and Care Excellence (NICE) and the Scottish Intercollegiate Guidelines Network (SIGN) has developed a suite of quality standards based on high-quality guidance (SIGN, 2014). The NICE accreditation program aimed to raise the quality of data used by health care professionals by evaluating the processes used by organizations to produce guidance and recognize those that meet a set of criteria (SIGN, 2014). Thus, the criteria were based on the AGREE II instrument. The AGREE II tool was most suitable out of tools reviewed, based on the applicability of standards, credibility, and international recognition.

It was unequivocally stated requisite pharmacokinetics, equianalgesic dosing, and adverse effects awareness on wide-range of issues is necessary, a Prommer and Picek (2012) study asserted. The utilization of multiple EBP strategies was warranted to tackle broader issues of competency and practice gaps (Zaccagnini & White, 2011). The Scoping review of the literature was especially focused on EBP, CPGs, and education. Credible articles were sought for instances where opioid responsiveness is questionable in the care of adult hospice patients. Others have approached pain control issues using alternative nonpharmacological strategies to alleviate pain from various etiologies (Gaertner, Siemens, Antes, Meerpohl, Xander, Schwarzer, Becker, 2015). The Scoping literature review consisted of general and specific strategies.

### **Search Strategy for Sources of Evidence-The Literature Review**

A scoping literature review conducted was a non-exhaustive comprehensive systematic query. The PICO (T) question guided the scoping literature review in a

systematic direction. Exclusive and inclusive criteria were applied to yield a final list of articles. From these articles, EBP data were extracted, selected, and saved into a literature review chart. This literature review consisted of an electronic search was conducted using selected keywords on some of the main databases on health science, selected websites, and a focus on primary reference books for learning organizations and EBP. The search for sources was restricted to English language articles only.

### **Specific Literature Review Search Strategy**

In the scoping literature review based on specific methodology, sources of evidence were sought using queries of MEDLINE (from 2000 to 2017). Also, CINAHL (from 2000 to 2017) was queried to review and identify intervention studies aimed at increasing patient and caregiver knowledge to change pain management behaviors.

The search narrowed down during a period of 2011 to 2017 to obtain specific search results with palliative care, hospice, and opioids to gain a better view of documents for what was known about hospice pain experiences and its relatedness to practitioners. Major emerging themes were: provider knowledge (mentioned several times), educating (mentioned several times), fear (mentioned several times), need for pedagogical discourse (mentioned several times), and a need for opioids (mentioned several times).

A list of these key wording created the terminologies used to perform the specific literature search. Keywords searching returned dozens of relevant articles about the opioids and hospice care. For this project, 15 relevant studies were selected based on the search terms: opioids, pain management, hospice intervention, and education. In a few

articles, it was evident data and lengths were condensed, perhaps as sections were cut to meet requirements for publication. However, compared to other practice specialties, an overall literature review seemed sufficient with typical limitations in the numbers of research conducted on EOLC.

Gathering and analyzing credible studies from databases was germane particularly when ample consideration was to locate interventions reflects EBP (Polit & Beck, 2012). Critically assessing the hierarchy of evidence from the literature base was equally vital. The broader article searches became; quantity prevailed over quality. In reviewing the relevant scholarship, the advice is to consider quality over quantity. Quality is all too important in EBNP. Quality articles on pain management and opioid prescribing were obtainable from the Scoping literature review strategies.

### **General Literature Review Search Strategy**

In a general literature review, CINAHL was primarily the database used. ProQuest, PubMed, Nursing Academic Search Premier, Allied Health Source, and Google Scholar also was searched for articles. In one strategy, a review of reference lists of publications identified in my specific literature searches located even more studies. Hospice educating for palliative care of pain with opioids at the EOL was the most general area of focus. Search engines and Boolean operators allowed terms and word combinations to be queried. Truncation populated broadened the queries by automatically searching for variations of terms entered.

I made queries using the following search terms: *hospice, life care the home, end of life, nursing, community nursing, hospice nursing, terminal illness, terminal care,*

*comfort care, end-of-life care, hospice care, definitions of pain, pain experience, pain and self-knowing pain, pain pathways, pain clinics, pain and teaching patients, health disparities, palliative medicine, end-stage palliative treatments, palliative care, ethical care, ethical hospice care, ethical end of life care, health policy, qualitative methodology, model, theory, pain and guidelines, actively dying and narcotics, hospice and analgesic, hyperalgesia and opioids , caregivers, pain and nursing education, and practitioners and opioids.*

### **Strategies and Standard Practices Previously Used to Address Gaps in Practice**

An outcomes research was reviewed to examine the results of care by Rudy, Daly, Douglas, Song, and Dyer (as cited in Grove, Burns, & Gray, 2013) to look at pain outcomes in the chronically critically ill special care unit. A study by Rasmussen and Farr (as cited in Grove, Burns, & Gray, 2013) examined pain problems and EBNP research, to identify areas of concern that require investigation to general insights to expand understandings of pain comprehension holistically.

Fenwick, Chaboyer, and St. John (2012) performed grounded theory research for decision-making processes used by persons to manage persistent pain; finding that persistent pain resulted in disruption of the known self. Self-management was identified as an overall transforming of the deciding self in three sub-processes: identifying consequences, actions, and conditions influencing self-disruption of sub-processes (Fenwick et. al, 2012). Fagerhaugh and Strauss (2015) developed a pain management theory identifying the following relationship: As expressions increase, pain management increases; the proposition was developed using grounded theory research.



The Fagerhaugh and Strauss (2015) pain study involved five researchers and two years of systematic observations in wards, clinics, and hospitals in developing a pain management approach with opioids (Fagerhaugh & Strauss, 2015). Beta-Endorphin (BE), morphine, and analgesics topics included discussions on an experimental, theoretical, and observational research basis for pain management. For the pain management study, the hypothesis formulated was: The more frequently a hospice patient verbalizes perceptions of pain, the greater the administration of analgesics (opioids) should be (Grove, Burns, & Gray, 2013).

### **Advancing Practice to Address Gaps**

For the project, the best available data from the specific literature returned integrative review findings that informed and supported the use of strong opioids for adults in hospice settings. The body of evidence highly approved AGREE II for an EBP appraisal of the CPG. The application of evidence-based care and AGREE II are the best tools to improve quality outcomes which target patients and communities. Many general studies indicated the same preference by giving superior approval to the AGREE II for the CPG assessment. A consensus of the reviewed literature confirmed education on strong opioids, safety, and efficacy is needed to develop the CPC for patients in hospice care (AHRQ NGC, 2016) to address gaps.

**Local background and context: evidence to justify the problem.** Hospice is an essential approach to addressing EOL needs (IOM, 2016). IASP (2015) research highlighted knowledge deficits, especially in the areas of pain assessment and dosage titrations as contributory to pain under-treatment. The IASP publication justified a need

to address problematic areas with opioid prescribing at the hospice site. The issues involved pain management dissatisfaction. Adverse ratings were expressed and documented in Deyta surveys. International studies selected from the literature review aligned with national guidelines for managing pain with opioids.

Opioids were the choice drugs for pain, as the NGC 2015, cites this class offers expedient results. Analgesics, such as Morphine are the gold standard of strong opioids; they are a hospice cornerstone for managing pain, with the many benefits that various opioid formulations offered. Beneficial opioid combinations have come to be known as a therapeutic arsenal (Adversi et.al, 2014; ClinicalTrials.gov, 2015; Dekel, Tomasi, Vasarri, Gori, Kelly, 2014; NGC, 2016).

Findings within the literature were practically relevant as severe pain often require rapid titration with hospice care (American Journal of Hospice and Palliative Medicine, 2015; Wells et. al, 2017). The evidence findings accommodated all the PICO elements and questions for an effort aimed at quality comfort measures. The DNP project offered up an opportunity to apply KSAs with CPG. When EBP was followed practitioners embraced care to the full extent and scope of their training as described in *The Future of Nursing: Leading Change, Advancing Health* (IOM, 2016). Years ago, on a national platform, the IOM demanded a safer health care system in the landmark reports *Crossing the Quality Chasm* and *To Err Is Human*.

It is important to examine this topic in the first place to address widespread gaps with resources and what is actually done in practice. Equally important is the fact, it was in 2012 when there was a public awareness campaign from NHPCO's Caring

Connections, dispelled myths about pain (NHPCO, 2015b) that disproportionately and disparagingly effect EOLC. Since that time, due to the prevailing thoughts as the basis for the campaign, it was then evident more advancement with pain and pain treatments are needed with hospice care.

Some evidence sources utilized to drive the CPG production were the scholarly literature, EBP processes, frameworks, relevant models, and theories. Aside from theoretical approaches to developing the practice to solve pain control issues some of the articles aimed at political reactions on how society deals with pain. Moynihan (2015) propositioned a guideline designed to mimic existing pain management principles dependent upon etiology and severity.

Unsurprisingly, colleagues largely support a CPG development for relevant knowledge and better pain relief that is readily available for practitioners (Callahan, Breakwell, & Suhayda, 2011). An EBP CPG was appropriate as opioids remain first-line therapy for moderate to severe pain. Evidence-based guiding practice always makes it possible no one dies in pain (Thomas, 2016) nationwide, regionally, or at the local community hospice site.

The Robert Wood Johnson Foundation's (RWJF), Community-State Partnerships in EOLC, received a grant to launch an initiative in California. The RWJF initiative worked with IDTs at 40 diverse hospitals from across the state in EOLC (NHPCO, 2017). EBP protocols developed from the initiative identified resources and tools most beneficial in producing a relevant pain control CPG.

*Summary of local evidence relevant to the problem.* At the project's site, quality changes needed to occur to address pain issues. EBP sources of evidence contained quality supportive data compiled for comparison before commencing the project. Universal research on pain control was relevant to hospice and significant to clinical practice problems with pain management. Evidence on a global scale substantiated a compelling need to embrace strategies for EBP pain control methods on an urgent basis. The urgency of an EBP CPG had relevance to pain control problems regionally and statewide as quoted in research evidence done by the University of Tennessee (U.T.) cited, "... Little is known about hospice care..." (Lindley, Colman, & Meadows, 2017). Fellow associates at U.T. discussed relevant findings that will assist in culturally congruent EOLC for families (Mixer, Fornehed, Varney, & Lindley, 2014).

The local evidence cited, EOLC is satisfying, meaningful, and fitting for patients facing death, and relevant to people's daily lives (Mixer, Fornehed, Varney, & Lindley, 2014). The U.T. data served as justified engaging local communities to foster benefits in EOLC. This study was relevant as it highlighted considerable knowledge gaps and guidance implementation due to unavailability of resources in the hospice community. Equally relevant were possible strategies discussed in the U.T. study which reiterated my need to undertake EBP actions strategically designed to apply the developed CPG locally.

Implementing the guidance for prescribing safe, effective opioids was the responsibility of the local agency and providers. Local evidence from the U.T. research supported a basis to develop strategies that promote satisfying death experiences. In the latter implementation and outcomes evaluative of the guidance, caregiver and behavioral

changes shall further contain prime measurements, which shall be compared knowledge level, as an outcome of interest. In a local context, guidance was relevant to practitioners who faced unmanaged pain problems in their practical duties. The developed CPG assumed guidance on opioids best-informed hospice prescribers decisions and justified clinical judgments.

*Summary of the local evidence on the problem justifying the PICO.* The PICO justified the constant need for a CPG and EBP for hospice patients. The scoping literature review justified a remaining need for practice and educational endeavors for colleagues caring for those with incurable conditions. Local hospice problems concerned an absence and lack of standardized methods to guide opioid prescribing. The PICO justified a CPG with safe, effective solutions for prescribing first-line drugs of choice, the opioids, was necessary for Hospice practitioners to manage patients pain issues properly.

Locally, the staff's KSA competencies were improved to enhance pain control, as two hospice metrics, (a) pain management principles and (b) education tenets were institutional priorities. The guidance developed for pain management considered AACN (2016) competencies, ANA (2016) professional standards of care, as well as reflected state, local, and federal contexts.

White and Dudley-Brown (2012) stated metrics and nursing-sensitive indicators of a patient's QOL. QOL is general perceptions of physical and mental well-being influenced by disease, injury, emotional stress, functional and pain status; as well as others. As inadequate pain relief affects QOL, practitioners are especially interested in correctly treating it (Terry, 2015); as to not, is a blatant failure of oath and obligations to

provide quality standard care. Competency is consistent with current professional care (IOM, 2016). KSA competencies addressed the gaps in federal, regulatory oversight, and accreditation standards with the CPG developed.

Investigators studying hospice care and pain management problems presented evidence at a facility identified as the project's site which concluded, "A number of clinical implications can be drawn from the study findings that hospice may use to improve clinical practice at the EOL" (Lindley, Colman, & Meadows, 2017). In the Scoping literature review, Targeted interventions were studies where participants in intervention groups received identical interventions; this is in contrast to different treatments in tailored interventions (Melnik & Fineout-Overholt, 2011).

Another specific EBP guidance support came from systematic reviews, meta-analysis, and several RCTs as some also were specific to targeted interventions. The highest levels of evidence found were in the Scoping literature review. Thus, based on a literature review, best education practices on KSAs in an educational offering are proposed herein, to inform learning on hospice issues and QOL measures. With EOLC, attaining desired health outcomes are consistent with current professional knowledge (IOM, 2017). Locally, practitioners are instrumental in overall improving the safety and quality benefits of EBP with opioid prescribing. At the Hospice site, competent EOLC is a huge, shared responsibility institutional-wise.

**Institutional context.** Despite the unique delivery program with specialized hospice services, a review of the QI data indicated a problem whereas pain control was not well managed. The NWHC was an EOLC institution where most patients are at least

50 years of age. The daily census ranged from 100 to 300 patients, with 25,000 to 30,000 Medicare home visits to over 1,000 patients conducted annually. Growth with hospice programs meant patients needed to be provided effective, consistent, safe, quality care, using EBP CPGs.

It is known problems with opioid prescribing affects communities. Nationwide, this is a societal issue, which may be improved. QAPI (Appendix B) and Medicare's Conditions of Participation [COPS] (Appendix B) were regulatory mandates, which allowed for measuring pain and comfort outcomes with for EOL services. Industry-specific benchmarks and patients' goals with QOL and symptom control (pain) were metrics used onsite as the QAPI program for outcomes management.

In the shared governance institution, better management of pain was achieved by EBP and education that informed understanding of compliance to hospices regulations and standards of care. An implementation plan guided by the agency's strategic vision and mission helped develop CPG. The use of EBP principles to develop the CPG permitted a QI initiative that also best aligned with the institutions' goals and the hospice philosophy of care. The hospice philosophy and concept of care is a central model for EOL care (NHPCO, 2015a).

#### **Local Terms and Definitions: Terminology and Relevant Operational Processes**

- Deyta Patient Survey: A reliable survey tool at the site which displayed patient and family feedback on hospice services allowing stakeholders to see strengths and weaknesses in pain management processes clearly.

- Medicare's Hospice Conditions of Participation (COPS; Appendix C): Allowed metrics and outcomes assessment to be measured through QAPI (Appendix C) for EOL hospice regulated by Centers for Medicare and Medicaid Services (CMS).
- Outcome Concept Systems (OCS): A concept-driven manner to reach quality standards for EOLC, the conception was a valuable, reliable analytic solution to gain hospice insights, integrity, and clinical outcomes improvement (National Research Corporation, 2016).

Operationally, OCS offered results-driven data intelligence, customer-centric healthcare across the continuum, and is recognized as an industry standard for QA benchmarking, QAPI compliance, and hospice quality reporting (National Research Corporation, 2016). The CPG applied to caring processes promoted quality EOL outcomes for caregivers, patients, and organizational outcomes. Given this, the pain was expressly managed from the usage of expert guides developed for education practices. The CPG for opioid prescribing informed QAPI compliance to hospice regulatory standards.

Regulatory awareness also had relevance extending beyond clinical circumstances to patient/family preferences; thus, guidance exceeded core measures once available and resourcefully coordinated amongst all stakeholders. Equally relevant to the CPG on prescribing strong opioids were contextual factors associated with core knowledge of state and federal regulations. The EBP CPG for safe, effective opioids drugs for hospice patients also covered cost acquisitions of prescribing opioids and prospective payments for services. The CPG was quality pain control guidance in a federal and local context,



as COPS violations place the institution at financial, legal, and accreditation risks. EBP on KSA competencies were necessities, which improved pain outcomes onsite one patient at a time (individuals), in communities, and for society's population, on a local (state), national, and federal level.

### **State and Federal Contexts Applicable to the Capstone**

The agency that hosted the Capstone project was a Medicare-Certified facility. Public policy with Medicare Hospice COPS governs all Medicare-certified hospices. Health care policy is typically developed to deal with health care access, cost, quality, or a combination of the three. This agency's problems with pain control outcomes were adverse quality services reported for pain control documented as high dissatisfaction rates. The patient's dissatisfaction with pain control services exceeded ranges set by the CMS. The high patient's dissatisfaction rates jeopardized facility reimbursements for the local home-based hospice, as federally, Medicare is the primary payer of services. Compliance to Hospice COPS was mandatory for the agency to receive Medicare reimbursements for hospice care services.

Locally, mandates for the EBP CPG were developed with input from focus groups, consumers, experts in certain subject matters, healthcare clinical providers, and other professionals. The CPG developed provided a manner for the institution to follow best practices and meet hospice standards as there was regulatory oversight through frequent evaluations. According to ANA (2016), as a hospice standard of care, pain commands attention in that complaints of pain must be optimally managed and controlled. Optimal pain control was an integral metric and component of quality with

EOLC. Optimal pain control as a metric was a major part of the hospice practice and centered on therapeutic prescribing. The EBP CPG covered staff learning on correct opioid prescribing to control pain. The hospice agency reached and exceeded comfort benchmarks locally and nationally.

A governmental agency, The Joint Commission (TJC) has pain management standards which are based currently on research findings. TJC is responsible the certification and accreditation of more than 20,000 health care institutions (TJC, 2017) as an independent, not-for-profit organization. TJC evaluates agencies to verify they consistently provide safe, effective, quality care. The CPG developed improved the safety of using opioid medications to address the federal contexts with TJC. Also, the hospice education occurred focusing on how to implement pain management guidance for the occurrence of satisfactory, therapeutic, comfort outcomes.

The educational guidance incorporated EBP from the RJWF, which had a national program to promote high-quality pain management at the local hospice setting. The RJWF nationwide project on pain management applied to developing the EBP CPG locally and was relevant to inform public policy. Social justice implications of the CPG generated include the provision of safe and effective opioid prescribing to an underserved denigrated hospice population. Quality EOLC added to the momentum of the modern hospice movement. To affect social change, a standard EBP CPG was to provide consistent opioid prescribing for pain control that improved hospice care.

### **Hospice, Expertise, Insights Education Plan Process**

Hence, the EBP guidance developed considered TJC, WHO, AHRQ, and Medicare's Hospice COPS (Appendix C) industry-specific policies, procedures, protocols, and regulations which were proposed herein as summarized in the following:

1. Maintain a hospice setting where competence, control, and comfort are expected.
2. Assess pain 100% of the time and administer analgesia with terminal illnesses.
3. Staff must be knowledgeable of typical opioid prescriptions that are regularly scheduled and know how to use the WHO analgesic ladder to manage pain best.
4. In addition to caregiver's knowledge increase, there will be an increase in the percentage of practitioners correctly prescribing stronger opioids in six months.
5. Should pain increase despite adequate treatment, go up on the WHO ladder.
6. Strong opioids should be readily available to safely care for terminally ill adults in a hospice setting to decrease gaps in what is known and practiced.

The RWJF foundations have a Promoting Excellence in EOL Care initiative, designed as a controlled trial testing the provision of comprehensive outpatient care and family caregiver support for seriously ill patients who have arrived at the intersection of curative and comfort care.

To uphold a competency of AACN's (2015) goals and objectives, the QI innovatively advanced interprofessional, team-based EOLC, in the form of practitioner lead EBP changes. The topic of educating caregivers and providers on KSAs with EOLC was a clinical interest. The issue at NWHC with pain control warranted a guideline development that was available and usable in various settings outside the hospice

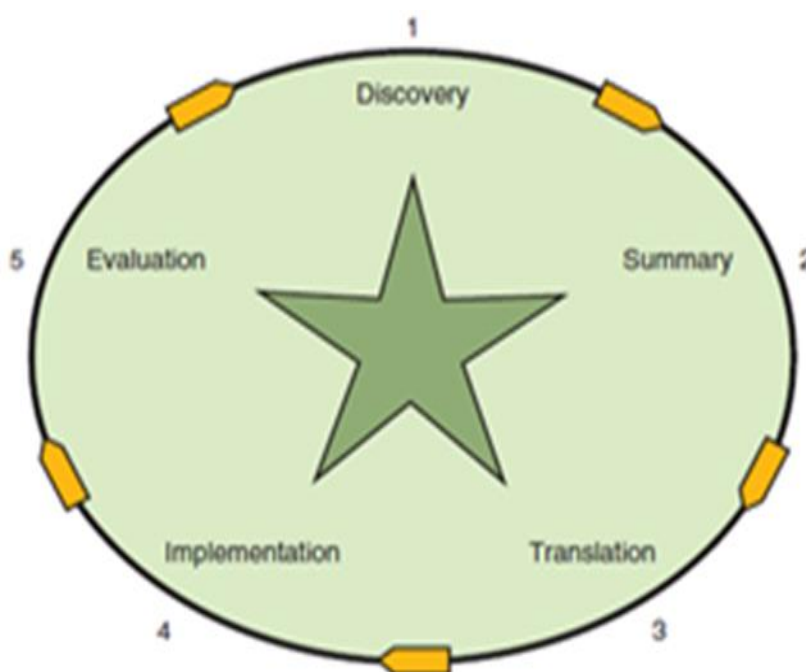
specialty. To best affect organizational and a mission of positive social change, there was a concerted team effort amongst various disciplines using knowledge translation as a source of evidence through the application of the ACE star model.

### **Ace Star Model and Literature Supporting ACE**

The ACE star model was an inclusive framework to organize and present the EBP approach and processes, which vary point to point on the model (Melnik & Fineout-Overholt, 2011). The model depicted the Cycle of Knowledge Transformation (Melnik & Fineout-Overholt, 2011). The theoretical basis for ACE was dependent upon the knowledge “form” in the five specific transformation stages (Melnik & Fineout-Overholt, 2011). According to Melnyk and Fineout-Overholt (2011), they are: 1.) Knowledge discovery, 2.) Evidence summary, 3.) Translation to practice recommendations, 4.) Implementation into practice, and 5.) Evaluation. The final step was evaluative and crucial to incorporate patients, providers, and systems outcomes to verify the EBP success.

The ACE star model was effective with the educational component to help learners effectively capture the guidance developed on opioid prescribing. A meta-analysis combined the Scoped literature review findings supported the QI project and was synthesized as evidence-based sources. A literature summary supported single statements to develop the guideline for adult hospice patients. The resultant CPG formed was translated into practice as a solution to specific opioid prescribing issues at the agency with adult hospice patients.

ACE served as theoretical support for developing and translating the guidance materials to practice. The ACE model was also a resource packaged for use with the clinical practice guidance and educational materials plan. The ACE conceptual framework was a vital evidence source and component for implementation planning. The CPG developed from combined sources of evidence was summarized and presented according to the corresponding point of the ACE model. The ACE star model of knowledge translation as illustrated in Melnyk and Fineout-Overholt (2011) as seen below is provided in Figure 1:



*Figure 1.* The ACE star model. Copyrighted material (Melnyk & Fineout-Overholt (2011). Reproduced with expressed permission.

### **Summary**

A meticulous, systematic literature review was performed. First, the Burns and Grove Problem Statement model with the PICO initiated the literature search. Next, the

John Hopkins evidence model was for a review of the abstracts. Once there was a review of abstracts, a comparison was for the strongest hierarchal evidence rankings relevant to agency's prescribing issues.

The narrower wording was, the more specific the computer retrieved and returned better qualities of evidence; the more words I added using Boolean terms like “or-allowing more than one term,” results broadened with lots of irrelevant data to sift through. Knowledge deficits with pain remained consistent, this issue along with correct opioid prescribing was uncovered in various specific and general articles. Eventually, vast pools of articles were further narrowed to extract applicable benefits, harms, and bias.

Newton, Southall, Raphael, Ashford, and LeMarchand (2010) believed some narratives link pain control to stress as they highlighted strong evidence suggesting pain is stigmatizing. Shaw and Lee (as cited in Terry, 2015) found misconceptions about hospice pain control to a considerable degree, with specific knowledge deficits on malignant pain control. All articles cited were relevant to the EBP GPG developed as they provided data on variables affecting pain management, caregiver knowledge deficits, and opioid prescribing.

The evidence body included sources from academic journals, books, magazines, and dissertations. Of note, studies directly focused on improving patient and family caregiver KSAs. Studies also tested targeted intervention effects to enhance patients and family KSAs (caregiver) behaviors regarding pain control. Most studies in pain management recommended intervening with clinician KSAs for best pain control, with a

number of studies that focused solely on changing clinician behaviors with opioid prescribing.

Key findings strongly supported NP-lead education in a context of opioid prescribing guidance in hospice. Theoretically, other attributes reflected three classifications: NPs, the patient, and NP-patient education (Zaccagnini & White, 2011). After the Scoped literature review, it was concluded once guidance on education is developed; IDT members will be used as the audience base to concentrate the mass of knowledge from evidence sources towards QI efforts. Peers consistently advised using ACE as the theoretical model with the AGREE II tool for the QI initiative.

In conclusion, the Scoped literature review consistently justified relevant evidence which supported a need to address problems with pain and opioid prescribing for hospice patients. A panel of experts was the selected population chosen to provide AGREE II feedback in a formal review of developed materials to create the pain management protocol through correctly prescribing opioids. To meet goals for the pain guidance CPG developed, the improvement, achievement, and monitoring of quality long-term pain outcomes was designed from planned procedural steps.

### Section 3: Collection and Analysis of Evidence

#### **Methodology**

This scholarly project consisted of the development of a CPG along with an implementation plan, long-term evaluation process, and educational materials that were formatively evaluated by an expert panel (Stetler et al., 2017). The first step to fully implementing the CPG and educational offering materials developed for appropriate opioid prescribing for hospice patients included evaluation processes and an expert review. The formal panel assessed the guidance for applicability to practice, relevance, fulfillment of regulatory requirements of the safety, and quality standards of hospice care among other items.

I developed the guideline, implementation plan, evaluation process, and educational materials with the support of evidence and theory from sources that I identified and synthesized during my review of the literature. To assess all the materials I developed, I convened a panel of experts and peers. The formative and summative evaluations consisted of anonymous surveys in a confidential process. The same panel participated in both formative and summative reviews. The developed materials promoted standardized practices for practitioners to prescribe strong opioids adequately. As a final output of the formative and summative evaluations, the site received the completed materials as developed QI resources to be implemented.

#### **Development of the Guideline and Educational Materials**

I presented material data to reviewers describing the gap in care at the organization. Hospice patients not obtaining optimal comfort was the problem. Thus, the



data presented supported the best pain management approaches. A CPG for the provision of pain control and competent care is vital in the hospice community. The expert panel was reminded how onsite gaps in resources hinder carer's abilities to master the KSAs effectively. Bridging the gap in resources is significant in all settings as it is expected that disciplines maintain proficiencies relevant to a prospective field. Mastery of KSA competencies was an expected requirement for appropriate pain management using strong opioids.

Researchers have described three classifications: hospice care providers, the patient, and practitioner-patient education (Melnyk & Fineout-Overholt, 2011). I presented a team of experts with a literature synthesis that supported the findings on the importance of an effective CPG for pain control. Synthesized literature that I gathered from meta-analyses and summative reviews served as evidence towards a solution. Resources developed comprised a package of guidance materials, with the CPG as a primary component.

The guidelines were a summary of consensus statements that I developed from existing findings of reliable hospice and palliative care organizations. Level I literature findings helped establish the guidelines. The John Hopkins' evidence hierarchy classified Level 1 as the strongest support in the literature. I presented the Level I meta-analysis of RCTs collected on safe prescribing for practitioners to the panel of guidance appraisers. To assess the guidelines, I developed a reliable evaluation tool from a pre-existing instrument, the AGREE II (Appendix D).

I developed and tailored the educational products towards the staff's KSA deficiencies. The ACE star model of knowledge translation was an adjunct to meet learning goals. ACE is consistently mentioned and highly recommended in the literature for establishing educational guidance (Melnik & Fineout-Overholt, 2011). All materials were literature-driven by sound evidence in the development and implementation phases. Because of the evaluation processes, there were also colleagues in place to introduce and help sustain changes when the project got implemented later.

### **Population Planned for the Formative and Summative Evaluations**

For the review of the materials I developed for this project, I purposefully selected an expert panel of team members as the population. The purposeful sample of participants to compose the formative group was an expert panel who possess the requisite knowledge and skill level to appraise the resource developments. Initially, 10 stakeholders for the formative evaluation team of committee members consisted of: The chief operations officer ([COO]-administrator), two physicians (the medical director [MD] and assistant medical director [AMD]), one pharmacist, one nurse researcher with a PhD, a doctor of nursing practice student, one nurse practitioner (NP), the staff nurse educator (SNE), the patient care manager (PCM) with a master of science nursing (MSN) degree, and one registered nurse case manager (RN-CM).

In Phase I, panel members utilized the AGREE II instrumentation (Appendix D). While seeking definitive feedback on materials for prescribing strong opioids, I explicitly needed experts with relevant credentials and an extensive background. I selected this expert panel as reviewers to obtain the most valuable feedback and appraisal possible for

immediate and long-term outcomes. The population that provided the summative evaluation of the developed materials was the same group of reviewers. Therefore, based on the results of this expert review, end users of the CPG had an exceeding level of confidence in the developed guidance as assessed by AGREE II users.

### **Data Collection: Instrument- AGREE II**

I used the AGREE II tool to execute plans for the collection and analysis of formative feedback given by the experts on developed resources (Appendix D). After a routine IDT meeting, the consenting participants reassembled and used AGREE II. Developed resources were physically distributed in person as a package containing hard copies of all materials. The packet contained a draft of the guideline. Within the conference room, there were also models of developed materials on display as well.

During the formative briefing, the panel received the summarization of the evidence in a presentation. The evidence summary for the project supported the use of the AGREE II tool for the formal appraisal. One criterion for panel selection was that members needed to be equipped to use the AGREE II. Given the panel's expertise, the AGREE II users had the abilities, familiarity, and training required for the assessment. Nevertheless, I presented the panel members with written and verbal instructions to remind them how to maximize use of the AGREE II tool. These explanations reinforced the differentiation between positive versus negative ratings on the AGREE II seven-point linear scale and areas where feedback was designated (Appendix D).

After the briefing in the conference room, the panel dismissed to the facility's onsite library, located elsewhere on the premises. The expert appraisers had sole use of

the library during a specified period to appraise developed materials. The reserved time was for the provision of anonymity and confidentiality of the AGREE II users. They were allowed to select any computer with a pre-downloaded intranet version of the AGREE II tool. There were also paper and pencil versions of the AGREE II available for panel members who opted out of the electronic format.

Once individuals completed the formal appraisal, an electronic submission prompt allowed for a secure upload of the user's feedback. Otherwise, a secured lock box was designated for manually completed AGREE II appraisals. After the panel of experts received, completed, and returned the AGREE II validation tool survey, I retrieved the feedback electronically or manually (Appendix D). After retrieval, I synthesized and analyzed the data.

If the panel recommended any changes, I made the modifications based on the formative evaluation. The same panel of experts reconvened for a review of the revised materials to complete a summative evaluation. In the summative review process, I represented and redistributed materials to the panel. There was a recollection of the AGREE II instrument. The data retrieval in the summative review was in the same confidential manner as with the formative review. Instructions and the AGREE II Instrument participants were utilized for both reviews are in Appendix D and E. The anonymously collected feedback on the AGREE II forms were reviewed for analyses.

**Protection of human subjects.** Fulfilling criteria within this project posed no identifiable risks to those select participants deemed suitable for and who consented to participate in this evaluation of the project. The purposeful sample composing the expert

panel consisted of consented stakeholders who volunteered to review the developed materials.

The panel of experts chosen provided confidential, anonymous feedback using the AGREE II instrument (Appendix D). I did not have any control over the expert panel. The project did not contain any endorsements with implementation or evaluation and was void of any special entitlements or exchanges. There were not any obvious ethical indications to barriers which may have prohibited completion of the project. All feedback responses were confidential and anonymous, and participation was voluntary. There were provisions for proper monitoring and protection of data. There was ethical discernment of the data analysis, results, interpretation, and dissemination processes. An application was submitted to the Walden Institutional Review Board for support of the project, prior to commencing it.

*Data analysis.* The data analysis of a guideline developed as guidance on effective prescribing opioids entailed using the AGREE II instrumentation domains with both reviews (Appendix D). The Statistical Package for the Social Sciences (SPSS) was the process selected the analyses. For the expert panel using the tool, written and verbal explanations explicitly described the instrument (Appendix D). The instructions were verbalized verbatim to AGREE Trust (2009) as

The AGREE II consists of 23 key items organized within six domains followed by two global rating items (“Overall Assessment”). Each domain captures a unique dimension of the guideline quality. Domain 1. Scope and purpose are concerned with the overall aim of the guideline, the specific health questions, and

the target population (items 1-3). Domain 2. Stakeholder Involvement focuses on the extent to which the guideline was developed by the appropriate stakeholders and represents the views of its intended users (items 4-6). Domain 3. The rigour of development relates to the process used to gather and synthesize the evidence, the methods to formulate the recommendations and to update them (items 7-14). Domain 4. Clarity of presentation deals with the language, structure, and format of the guideline (items 15-17). Domain 5. Applicability pertains to the likely barriers and facilitators to implementation, strategies to improve uptake, and resource implications of applying the guideline (items 18-21). Domain 6. Editorial independence is concerned with the formulation of recommendations not being unduly biased with competing interests (items 22-23).

The emphasis was on areas within the AGREE II form designated for comments, concerns, advice, and recommended changes (Appendix C). Guidance developers can use the tool to ensure their processes are robust (AGREE, 2009). An expert panel of assessors can be used to conduct a formal review (AGREE, 2009). In a formal review, there is a judgment to the quality of processes in developing guidance before practice (AGREE, 2009). The panelists were highly trained for this task, their estimated assessment of guidance using AGREE II took about 1.5 hours. The experts were alone for the specified 1.5-hour time frame anticipated as the completion time.

The panel was also instructed to place the completed forms in a secure feedback box at a designated location (Appendix D). Feedback from the AGREE II forms was retrieved (Appendix D). There was an application of Microsoft Excel, and SPSS applied

to the analysis process. Any quantifiable data from the boxes were categorically organized. There was a meticulous check that all the data was gathered and synthesized. The focus was turned to the comment boxes; which contained the panel's feedback (Appendix D). I entered the data into SPSS software for analysis. The feedback was then analyzed for the relevant subject matter. In addition to a superior rating with internal consistency, the relevancy of AGREE II was amplified by reviewed Cronbach's alpha reliabilities in previous studies and bolstered for the Likert scale aspect of it (Terry, 2015). The tables generated were displayed as Descriptive statistics in the SPSS process.

***Implementation plan.*** The colleagues who participated in the review were empowered to implement and sustain changes. The site had access to the availability of the guidance developed and proposed herein to help substantiate new approaches with the CPG. This guidance served a purpose to meet quality standards, metrics, regulations, and direct decisions. The EBP CPG ultimately translated into clinical practice as a theory-based guideline using the ACE star model of knowledge translation. As a part of the educational undertaking, a highly preferred applicable theory was the Theory of Unpleasant Symptoms (TOUS). TOUS was relevant and was also well-suited for the EBP journey (Grove, Burns, & Gray, 2013) when educating staff, patients, and families about quality care. I strongly advised the NWHC site to use this method as theories underpin the nursing practice discipline.

Strategies such as Aim Statements were used with a QI focus to evaluate individual dimensions of the guideline. A framework helps incorporate presenting the EBP and potentially assisted in transforming innovative changes at the site. Thus, overall,

AGREE II was proposed framework as a premise for the site to address educating the staff on their gaps in practice. The ACE model was also used to help the site integrate assessment, performance improvement, and evaluation.

**Long-term evaluation plan.** As initiatives promoted awareness in pursuing an ongoing drive for excellence extended beyond this Capstone, I offered the site a plan for long-term evaluation. The clinical algorithm planned suggested that every six months; the agency looked at satisfaction scores and compared pre-implementation to post-implementation results to determine if they were meeting their outcomes marks. I suggested they use the unfavorable Deyta survey results as a comparison to assure they are progressing forward toward the intended goals. Deyta survey questions are in Appendix B. The site received all the materials developed for this project to help in their future outcomes evaluation.

### **Evaluation Plan**

I consulted the expert panel to provide me with formative and summative data. After completing any modifications, there was an acceptance evaluation of the final product. The Expert panel's feedback assisted in determining the feasibility and validation of the proposed solutions towards practical improvements. By the strong consideration given to credentialing, backgrounds, and experience of the AGREE II users, they were highly capable of providing credible feedback. There was a synthesis of the Expert panel's appraisal of assessed materials. Their feedback underwent a detailed analysis.



The analysis covered several AGREE II domains (Appendix D). Domains within the AGREE II assessment included the overall rating of the guideline (Appendix D). Thus, the Expert panel's appraisal helped determine whether the content of the materials was sound, valid, and applicable to the hospice site. Intense vetting was relayed in the scoring as stakeholder's rated the materials during the assessment and appraisal process. High scoring assured the materials were properly developed and underwent intense vetting. Therefore, a 100% approval of the draft guideline from all 10 Expert reviewers was the goal sought.

### **Summary**

A full review of the guidelines, materials, implementation, and long-term evaluation plan using reliable processes was essential. Thus, in this project methods included sampling, in-house test piloting prior to roll out, in addition to the summative and formative evaluation processes. Within the methods, the expert panel of stakeholders used the AGREE II to summatively and formatively evaluate materials. Therefore, the developed resources were backed by a high level of confidence and certainty when correctly implemented. After the AGREE II comprehensive appraisal and thorough vetting, there was a subsequent offering of the materials to NWHC's administrative authority, the Director of Operations (DOO). In turn, the gaps addressed were between what is known about good EOLC and what was practiced at Hospice site. A developed CPG assured that gaps in pain control were considerably narrowed or closed and those measurable positive outcomes with patient care and satisfaction occurred.

## Section 4: Findings and Recommendations

Practitioners are to fulfill solemn and dutiful obligations to contribute to appropriate prescribing options for hospice patients that benefit other disciplines. Yet, pain control problems exist. Successful implementation of the CPG demonstrates that applicable, innovative, available guidance averts adverse outcomes with pain.

### Summary and Evaluation of Findings

In this section, I will present the overall findings of the project. The project was the development of a CPG for hospice staff, patients, and families on appropriate opioid use. A two-step process was used to evaluate the CPG before finalizing the guidance. This process included a summative and formative evaluation.

**Formative evaluation.** Ten individuals performed the formative evaluation. The formative group consisted of the COO, two physicians, a pharmacist, a nurse researcher, a DNP student, an NP, an SNE, a PCM, and an RN-CM. The formative evaluation included ten questions. Each participant returned evaluations within the time allotted. The final review included all ten responses. For further explanation, please refer to the following table:

Table 1

#### *Formative Group CPG Questionnaire and Responses*

Developer questions	Participants' responses		
	Yes	No	Comment(s)
1. Is there a clear understanding of all statements contained within the CPG? If not, please provide necessary feedback on any unclear statements or terminology requiring clarification.	1	9	Participants suggested a consensus statement be separated into two independent statements.

2.	Are the CPG overall goal(s), objective(s), and sources of evidence described in detail with expected benefits of the guideline specific to the hospice problem and topic?	10		
3.	Was there a description of the target audience of the resource development (e.g., hospice metrics, standards of care, to inform practice)?	10		
4.	Please provide feedback on the CPG; i.e. is it appropriate to the targeted audience (hospice patients)?	10		
5.	Is the CPG appropriate to the targeted setting? Does it appear to capture the current state of clinical circumstances?	10 10		
6.	Is there a description of the intended CPG audience (e.g. hospice specialists, medical directors, physicians, institutional or clinical leaders, senior administrators, families, patients?)	10		
7.	Do resources appear to consider and capture patients', families', community's organizational and societal preferences and views? Why or why not? Please provide comments on possible barriers to implementing this CPG and immediate concerns foreseen with the CPG implementation.	8	2	Comprehensive, Thoughtful, Simplicity of use; Serves as a reference, Teach-back method; Offer a question and answer session for the CPG; Clarify staff concerns of perceived ambiguity with resources; Address fears of pain with the reassurance that appropriate protocols have been established; Provide training and professional development for all new and current employees; Encourage staff adoption of the CPG to address appropriate prescribing of safe, effective opioids for adult hospice patients; Barriers: cost, demands <sup>a</sup>
8.	Do you think that use of the guideline will achieve the following stated goal and objectives? The CPG will promote satisfactory feedback survey data and avert adverse pain control outcomes in future quarters. If not, please provide necessary comments as to how goals and objectives may be modified and achievable.	10		Alternatives offer flexibility with prescribing safe, effective opioids

9. Is sufficient information included from each appraisal domain to sustain the CPG and protocols developed? If you answered no, please comment with information on potentially omitted areas you feel should be addressed and included.	9	1	One participant suggested a fact sheet that deals with the nationwide growing opioid epidemic to help influence providers on the significance of proper opioid prescribing.
10. Are there any areas you would like to modify or change or added to this guideline? If yes, please state area and provide suggestions.	9		Present to the organization Disseminate to the healthcare staff Obtain data over a six months' period beyond initial implementation for a summative evaluation of patient satisfaction from statistical data. Facilitate translation of evidence as needed

<sup>a</sup> Participants PCM & RN-CM offered no feedback for Question 7.

There was overwhelming cooperation with valuable responses for the questions. However, on one question, two individuals did not offer the requested comments for open-ended questions relevant to the actual CPG. The formative evaluators offered a high degree of superior quality feedback on the format and structure of the CPG. Overall, their recommendations were in regards to the end-users and targeted audience population for the CPG.

After the formative evaluation, I revised the CPG according to the feedback offered. Overall, the formative group agreed that the CPG provided clear and concise EBP for healthcare practitioners to manage pain with appropriate opioid prescribing adequately. Once I finished revising the guideline, I redistributed it to the group for the summative evaluation.

***Summative evaluation.*** The summative evaluation included the same ten individuals. The group returned the completed AGREE II Tool within the designated period. Criteria for inclusion in the summative group included credentialing, expertise,

professional experience, and status as a current full-time practitioner in the hospice setting. The 10 participants were all employed at the same hospice organization in an urban area in the NW United States.

In Domain 1, participants addressed the purpose and scope of the CPG (Please refer to Appendix D.) All participants scored statements applicable to the project in this section. A 100% domain score was obtained. Stakeholder involvement was addressed in Domain 2 with statements applicable to the project. The domain score was 97.5%. Domain 3 addressed statements regarding rigor of development with the domain score as 99.7%. Domain 4 addressed statements about the clarity of presentation. Each participant responded to every statement within this domain. The domain score was 100%.

Items about applicability were addressed in Domain 5. A 97.5% domain score was obtained. Domain 6, containing statements regarding editorial independence, had a domain score of 100%. The overall CPG appraisal contained the subsequent statements: (1) Rate the overall quality of the CPG. (2) This CPG is recommended for use. The overall rating of the guideline was 98.1%, and 100% of the participants accepted it without modifications.

Table 2

*AGREE II Summarized Data*

AGREE II DOMAIN	Percentage (%) Score
Domain 1: Scope and Purpose	100%
Domain 2: Stakeholder Involvement	97.5%
Domain 3: Rigor of Development	99.7%
Domain 4: Clarity and Presentation	100%

Domain 5: Application	97.5%
Domain 6: Editorial Independence	100%
Overall Guideline Assessment	98.1%
Recommend This Guideline for Use	100% Yes without modification

**Discussion of Findings.** The developed CPG offered practitioners recommendations on appropriate opioid prescribing. EBP guidance was necessary for patients receiving EOLC and experiencing unmanaged pain. CMS expects practitioners to provide comfort to all hospice patients receiving EOLC. An established CPG advised how to safely and effectively prescribe strong opioids. The standardized CPG ultimately resulted in increased patient satisfaction, decreased pain, and unnecessary discomfort, which improved QOL for hospice patients. It is anticipated the recommended practices may further lead to a standardization of quality care in other hospice and healthcare programs. The formative group responses reinforced a need for the CPG, while the summative group's 100% approval validated the EBP CPG.

**Implications for practice/social change.** Intellectual appraisal processes for a CPG on opioids included retrieving innovative evidence, adopting newer versus conventional practices, and theorizing outcomes. Societal exceptions, patterns, values, and preferences were considered in developing guidance. The social intent of the CPG centered on improvement of pain management practices through reflective thinking by empowering practitioners' clinical decision making with opioid prescribing. The guidance embracing health care policy and social policy that positively influenced patient outcomes is important and relevant to practitioners. As pain crosses social lines,

overcoming EOLC barriers by developing practice resources not only resulted in better QOL, but it positively impacts care costs and efficiency. Guidance on appropriate opioid prescribing was socially acceptable for producing a practical solution for EOLC was made readily available to address clinical and social issues. The newly developed CPG profoundly affects how society treats EOLC patients.

### **Project Strengths and Limitations**

All the individuals in the formative and summative groups had lengthy employment in hospice settings. The group's extensive hospice background strengthened the evaluations of the CPG. With the group's varying levels of credentials and insight, they professionally collaborated to assist with the correct terminology and formatting for the CPG. Moreover, all participants in the formative and summative groups were end users. A limitation of the project is that two of the 10 participants in the formative group withheld feedback for particular questions in evaluating the project. Due to the relatively small number of participants, such omissions limited the data more than they would have with a larger group of respondents.

### **Summary**

I developed the EBP CPG to promote safe, effective prescribing of opioids for adult patients to fulfill gaps between theory and practice. The CPG, designed for hospice settings, has the potential to gain nationwide and perhaps global success. The CPG is comprehensive, meaning that it includes all areas of key content by capturing the clinical state of hospice. The CPG achieves stated objectives and meets the needs of the targeted audiences. The CPG aids practitioners in appropriately prescribing strong opioids to meet

and exceed hospice standards and metrics in regards to patient care.



## Section 5: Dissemination Plan

Development of a Guideline for Hospice Staff, Patients, and Families on Appropriate Opioid Use

by

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### Introduction

Dissemination is an essential component of scholarship. After the CPG develops, the guidance needs disseminating. The IOM calls for the development of an effective infrastructure to support the more rapid evidence-based prescribing of opioids application with EOLC. Dissemination is an avenue to bridge theory and EBP to quality patient care. Dissemination of the Capstone scholarship and theoretical practice reflects a reality whereas hospice providers may maximize patient comfort by properly prescribing strong opioids. Solid scientific theoretical evidence reflecting QI domains will be disseminated, so practitioners prescribe opioids safely and effectively. I plan to submit the manuscript to the Hospice & Palliative Medicine International Journal.

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**Objective:** To develop an EBP CPG for practitioners with guidance on prescribing strong, effective, and safe opioids to hospice patients.

**Background:** The aim of the project was to develop an EBP CPG for HCPs practicing in EOLC. The focus of the project was on an urban hospice located in the NW region of the U.S.

**Method:** A formative group appraised the CPG and offered feedback on the guidance before distribution of the CPG to a summative group of expert panelists. The summative group re-assessed the CPG for the applicability, validity, and quality of the CPG by using the Agree II Tool.

**Participants:** The formative group contained 10 participants. The formative group included the COO, two physicians, a Pharmacist, a Nurse Researcher, a DNP student, an NP, an SNE, a PCM, and an RN-CM. The summative group included the same 10 participants from the formative group.

**Results:** Feedback from the formative group resulted in a revised CPG preceding the distribution of the CPG guideline to the summative group. The summative group recommended and accepted the CPG with a 100% approval without any modifications. The quality of the CPG was scored at 98%.

**Conclusions:** The CPG for safe, effective opioid prescribing to adult hospice patients guides hospice practitioners who provide EOLC to patients receiving strong opioids for appropriate pain control.

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**Keywords:** *“Hospice”, “terminal illness”, “comfort care”, “ethical end-of-life care”, “hospice care”, “palliative care”, “definitions of pain”, “theory”, “pain and guidelines”, “actively dying and narcotics”, “practitioners and opioids”.*

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## **INTRODUCTION**

Providing effective, safe prescribing from practitioner to patients in regards to strong opioids is a significant problem in hospices nationwide. Prescribing safe, effective opioids by hospice practitioners is imperative for several reasons. Providing effective opioids in hospice should consist of more than just prescribing, but should also allow for strong and safe opioids from hospice providers to patients. Family members are the center of hospice services and can serve as a reliable caregiver in assisting the patient with safe and effective use of prescribed opioids. Providing safe and effective opioids to hospice patients not only benefit the family and patients, but it also permits hospice professionals, local, and federal regulators to evaluate the quality of services provided with hospice care.

## **BACKGROUND AND OBJECTIVES**

Practitioner's prescribing of opioids can be challenging for many hospice providers nationwide. Strong opioids offer needed comfort to patients and family members once prescribed safely and effectively. Hospice practitioners have a specific responsibility in prescribing opioids in EOLC. The hospice practitioner role in prescribing strong opioids is unique. In the unique role, the provider's EOLC should coincide with patient expectations and national standards. Guidance for safe and effective prescribing of strong opioids for hospice patients should become the standard for all hospice programs. This CPG is a recommendation for consistent guidance when practitioners prescribe strong opioids to hospice patients.

Objectives of this manuscript are to examine and review the developed CPG, which consists of prescribing safe and effective strong opioids for hospice patients. It is imperative patients receive strong, safe, and effective opioids in hospice with EOLC.

Practitioners are expected to know appropriate protocols when prescribing opioids in EOLC. Professional competency is an ANA standard of care. Practitioners have a role in providing the highest quality of remaining life and support at the EOL for both patients and their loved ones; this is traditional, accepted, and expected (ANA, 2016). Fidelity to patients requires expertise in relieving suffering including a provision of comfort (ANA, 2016). Various methods of unsafe, ineffective opioid prescribing in hospice ultimately affect the level of comfort and satisfactory outcomes for patients and facilities.

An effective, standardized CPG on providing safe, effective prescribing of strong opioids is imperative for the patient's QOL. The standardization of an adequate CPG is necessary for staff obligations and to achieve successful patient outcomes. Standardizing a CPG is warranted for organizational benchmarks leading to an improved quality of care. TJC (2017) has issued standards for pain-management, to survey for compliance by adding patient-safety goals. Facilities are to have devised policies and procedures requiring pain intervention for reports of pain experienced with a terminal illness (TJC, 2012). One solution proposed for a hospice shortcoming with pain in EOLC is to relieve suffering and QI for the dead and living. Pain control is attainable through comprehensive pain management, particularly for patients with life-threatening and terminal illnesses. Thus, a standardized CPG for providing safe and effective strong opioids is usable in hospice and other practices.

## **GUIDELINE EVALUATION**

### **PROJECT METHOD**

A Literature scope revealed just enough proof for EBP approaches to pain management in hospice settings, where standardization of a CPG for prescribing strong opioids is nonexistent in many hospices. Accordingly, none of the literature reviewed stated, 'allow terminally ill patients to suffer unmitigated.' The literature review and data analyzed from the formative feedback and summative group strengthened the validity of the CPG developed. Primary end-users reviewed the CPG before finalizing the EBP

guidance. The CPG acceptance by Reviewers with an Expert consensus was the goal. These ensured the completion of necessary changes for a 100% accuracy, approval, and acceptance of the CPG.

#### **METHOD: FORMATIVE GROUP**

An Expert consensus was used to formulate the CPG. There was the distribution of a questionnaire with ten items to the formative group. The formative group had a COO, two physicians, a Pharmacist, a Nurse Researcher, a DNP student, an NP, an SNE, a PCM, and an RN-CM as participants. Two participants left blank responses on one item. Participants were presented the AGREE II tool and advised to complete the forms at a designated location. The group had direct access to the tool containing many opportunities to provide feedback. Many methods were made available for contacting the project developer for concerns or questions. Table 1 is an itemized list of the questions with participant feedback.

#### **METHOD: SUMMATIVE GROUP**

There was a redistribution of the AGREE II Tool to the same 10 participants from the formative group. The AGREE II users of the Summative group have an extensive practice career at the urban hospice located in the NW region of the U.S. Each participant returned the completed feedback over the designated period. Therefore, expert input for the evaluation, recommendations, and overall scoring for the quality of the CPG developed came from all 10 AGREE II appraisals.

Table 3.

#### *Formative Group Questionnaire CPG*

Developer Questions	Participant's Response
1. Is there a clear understanding of all statements contained within the CPG?  If not, please provide necessary feedback on any unclear statements or terminology requiring clarification. Please suggest modifications and adjustments needed.	Yes:  No: 10  Comment (s):
2. Is sufficient information included from each appraisal domain to initiate the CPG the developed with recommended statements (1-12)? Should optional comments (13-23) be included in the CPG?	Yes: 10  No:  Yes: 10  No:  Comment (s):

<p>If you answered no, please comment with information on potentially omitted areas you feel should be addressed and included.</p>	
<p>3. Was there a description of the target audience of the resource development (e.g., hospice metrics, standards of care, to inform practice)?</p>	<p>Yes: 10 No: Comment (s):</p>
<p>4. Please provide feedback on the CPG; i.e. is it appropriate to the targeted audience (hospice patients)?</p>	<p>Yes: 10 No: Comment (s):</p>
<p>5. Is the CPG appropriate to the targeted setting? Does it appear to capture the current state of clinical circumstances?</p>	<p>Yes: 10 Yes: 10 No: No: Comment (s):</p>
<p>6. Is there a description of the intended CPG audience (e.g. hospice specialists, medical directors, physicians, institutional or clinical leaders, senior administrators, families, patients?)</p>	<p>Yes: 10 No: Comment (s):</p>
<p>7. Do resources appear to consider and capture patients', families', community's organizational and societal preferences and views?  Why or why not?  Please provide comments on possible barriers to implementing this CPG and immediate</p>	<p>Yes: 10 No: Comment (s):</p>

<p>concerns foreseen with the CPG implementation.</p>	
<p>8. Are the CPG overall goals and objective(s) described in detail with expected benefits of the guideline specific to the hospice problem and topic?</p>	<p>Yes:10 No: Comment (s):</p>
<p>9. If you were employed at a different hospice facility experiencing challenges meeting benchmarks and metrics in a pain setting, would you feel comfortable implementing and adhering to the prescribed protocol?</p>	<p>Yes:10 No: Comment (s):</p>
<p>10. How may this CPG be implemented organizationally and in various pain settings, or how might the CPG have added value if you or your family utilized hospice services and had to be prescribed opioids?</p>	<p>10 Participants responded: Comment (s): Present to the administration. Present to hospice staff. Obtain outcomes data over a six-month period post implementation for statistical data to re-evaluate patient care satisfaction. Patient returns and follow-ups, phone calls, use of electronic and digital media. Address fears of unmanaged pain and give reassurance as to how safe and effective opioids will be prescribed.</p>

	<p>Adequate training for all new employees with professional development and training for current staff at the hospice site.</p> <p>Encourage staff implementation of the CPG and address time allotted to perform associated tasks properly.</p> <p>The optional CPG will facilitate patient satisfaction with pain management with enhanced opportunities for new patient referrals to the hospice facility in the future for delivering EOLC.</p> <p>Use reminders around the site for staff to adopt the newly developed CPG.</p>
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### DATA ANALYSIS

The AGREE II consists of 23 key items organized within six domains followed by two global rating items (“Overall Assessment”). Each domain captures a unique dimension of guideline quality. Domain 1. Scope and purpose are concerned with the overall aim of the guideline, the specific health questions, and the target population (items 1-3). Domain 2. Stakeholder Involvement focuses on the extent to which the guideline was developed by the appropriate stakeholders and represents the views of its intended users (items 4-6). Domain 3. Rigour of development relates to the process used to gather and synthesize the evidence, the methods to formulate the recommendations and to update them (items 7-14). Domain 4. Clarity of presentation deals with the language, structure, and format of the guideline (items 15-17). Domain 5. Applicability pertains to the likely barriers and facilitators to implementation, strategies to improve uptake, and resource implications of applying the guideline (items 18-21). Domain 6. Editorial independence is concerned with the formulation of recommendations not being unduly biased with competing interests (items 22-23).

Table 4.

#### *AGREE II SUMMARIZED DATA*

AGREE II DOMAIN	Percentage (%) Score
Domain 1: Scope and Purpose	100%

Domain 2: Stakeholder Involvement	97.5%
Domain 3: Rigor of Development	99.7%
Domain 4: Clarity and Presentation	100%
Domain 5: Application	97.5%
Domain 6: Editorial Independence	100%
Overall Guideline Assessment	98.1%
Recommend This Guideline for Use	100% Yes without modification

## **RESULTS**

The first domain addressed the CPG’s scope and purpose in three statements. Each of three statements applied to the CPG, and all 10 participants responded. There was a 100% achievement with the first domain. The second domain had four statements addressing stakeholder involvement. Four appraisers recorded a 6/7 score in this area. The domain score was analyzed to reflect the input. A domain score of 97.5% was obtained. The third domain had seven statements to appraise rigor of development of the CPG. Item 14, which was ‘A procedure for updating the guideline is provided’ did not apply; therefore, scoring with the third domain was adjusted accordingly to 99.7%. Clarity of presentation was addressed in the fourth domain by four statements. The participants responded to all statements in this domain. A 100% rating was obtained in this domain based on input from the 10 participants. The fifth domain addressed the applicability of the CPG through three items. 97.5% was accumulated for this domain. Editorial independence was addressed in the sixth domain as statements 22 and 23. 100% approval was obtained for the last domain. The overall CPG appraisal had two statements, which were: “I would recommend this guideline for use” and “Rate the overall quality of the guideline.” Overall, the CPG was appraised at 98.1%, recommended, and accepted with an expert consensus for frontline practitioner usage at 100% without modification from all 10 participants. Scoring results by appraisal domain are referenced in Table 2:

### **Domain 1: Scope and Purpose**

Domain 1	Item1	Item2	Item3	Total	% Score
Appraiser1	7	7	7	21	100%
Appraiser2	7	7	7	21	100%
Appraiser3	7	7	7	21	100%
Appraiser4	7	7	7	21	100%
Appraiser5	7	7	7	21	100%
Appraiser6	7	7	7	21	100%
Appraiser7	7	7	7	21	100%
Appraiser8	7	7	7	21	100%
Appraiser10	7	7	7	21	100%

<b>Total Domain 1</b>	63	63	63	63	<b>100%</b>
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#### Domain 2: Stakeholder Involvement

Domain 2	Item4	Item5	Item6	Total	% Score
Appraiser1	6	7	7	20	95.2%
Appraiser2	7	7	7	21	100%
Appraiser3	6	7	7	20	95.2%
Appraiser4	7	7	7	21	100%
Appraiser5	6	7	7	20	95.2%
Appraiser6	7	7	7	21	100%
Appraiser7	6	7	7	20	95.2%
Appraiser8	7	7	7	21	100%
Appraiser10	7	7	7	21	100%
<b>Total Domain 2</b>	59	63	63	185	<b>97.5%</b>

#### Domain 3: Rigor of Development

Domain 3	Item7	Item8	Item9	Item10	Item11	Item12	Item13	Item14	Total	% Score
Appraiser1	7	7	7	7	7	6	7	*N/A	41	97.6%
Appraiser2	7	7	7	7	7	7	7	*N/A	42	100%
Appraiser3	7	7	7	7	7	7	7	*N/A	42	100%
Appraiser4	7	7	7	7	7	7	7	*N/A	42	100%
Appraiser5	7	7	7	7	7	7	7	*N/A	42	100%
Appraiser6	7	7	7	7	7	7	7	*N/A	42	100%
Appraiser7	7	7	7	7	7	7	7	*N/A	42	100%
Appraiser8	7	7	7	7	7	7	7	*N/A	42	100%
Appraiser10	7	7	7	7	7	7	7	*N/A	42	100%
<b>Total Domain 3</b>	63	63	63	63	63	62	63	*N/A	377	<b>99.70%</b>

#### Domain 4: Clarity and Presentation

Domain 4	Item15	Item16	Item17	Total	% Score
Appraiser1	7	7	7	21	100%
Appraiser2	7	7	7	21	100%
Appraiser3	7	7	7	21	100%
Appraiser4	7	7	7	21	100%
Appraiser5	7	7	7	21	100%



Appraiser6	7	7	7	21	100%
Appraiser7	7	7	7	21	100%
Appraiser8	7	7	7	21	100%
Appraiser10	7	7	7	21	100%
<b>Total Domain</b>	<b>4</b>	<b>63</b>	<b>63</b>	<b>189</b>	<b>100%</b>

#### Domain 5: Applicability

Domain 5	Item18	Item19	Item20	Item21	Total	% Score
Appraiser1	6	7	7	*N/A	20	95.2%
Appraiser2	7	7	7	*N/A	21	100%
Appraiser3	6	7	7	*N/A	20	95.2%
Appraiser4	7	7	7	*N/A	21	100%
Appraiser5	7	7	7	*N/A	21	100%
Appraiser6	6	7	7	*N/A	20	95.2%
Appraiser7	7	7	7	*N/A	21	100%
Appraiser8	7	7	7	*N/A	21	100%
Appraiser10	6	7	7	*N/A	20	95.2%
<b>Total Domain</b>	<b>5</b>	<b>59</b>	<b>63</b>	<b>*N/A</b>	<b>185</b>	<b>97.5%</b>

#### Domain 6: Editorial Independence

Domain 6	Item22	Item23	Total	% Score
Appraiser1	7	*N/A	7	100%
Appraiser2	7	*N/A	7	100%
Appraiser3	7	*N/A	7	100%
Appraiser4	7	*N/A	7	100%
Appraiser5	7	*N/A	7	100%
Appraiser6	7	*N/A	7	100%
Appraiser7	7	*N/A	7	100%
Appraiser8	7	*N/A	7	100%
Appraiser10	7	*N/A	7	100%
<b>Total Domain 6</b>	<b>63</b>	<b>N/A</b>	<b>63</b>	<b>100%</b>

#### Overall Guideline Assessment

##### 1. Rate the overall quality of this guideline

	Score	Total	% Score
Appraiser1	7	7	100%
Appraiser2	7	7	100%
Appraiser3	7	7	100%

Appraiser4	7	7	100%
Appraiser5	7	7	100%
Appraiser6	7	7	100%
Appraiser7	7	7	100%
Appraiser8	6	7	86%
Appraiser10	7	7	100%
<b>Total Score</b>	<b>62</b>	<b>62</b>	<b>98.1%</b>

<b>2. I would recommend this guideline for use</b>			
	<b>Yes</b>	<b>Yes, with modification</b>	<b>No</b>
Appraiser1	Yes		
Appraiser2	Yes		
Appraiser3	Yes		
Appraiser4	Yes		
Appraiser5	Yes		
Appraiser6	Yes		
Appraiser7	Yes		
Appraiser8	Yes		
<b>Appraiser10</b>	<b>Yes</b>		
<b># of Approval</b>	<b>100%</b>		

**\*All participants recommended and accepted the CPG with 100% approval without modification.**

## DISCUSSION

Ten experts were invited, consented, and participated in this project. Each participant responded to AGREE II items by rating domains and returning valuable expertise feedback within the allotted period. Sources of evidence were obtained through a literature scope with a meta-analysis of systematic data collection on publications containing meta-analyses of articles. Significant data were obtained scoping the literature and incorporation consensus recommendations from a panel of hospice experts. This methodology was imperative in aiding development and finalization of the EBP CPG to form a standardized process for frontline hospice practitioners to adequately prescribe strong opioids in hospice programs. The CPG developed guideline for hospice patients receiving EOLC is necessary as it allows practitioners the ability to manage pain effectively manage pain. Furthermore, it ensures the safety with prescribing strong opioids to hospice patients to side effects and adverse events. Moreover, there are assurances hospice patients, and their families have been included in the production of the CPG to optimize use and success of the guidance. It will also help costs acquisition relevant to policy and societal implications of hospice care.

The ACE star model of knowledge translation was the theory selected to link the evidence to practice. The model depicts the Cycle of Knowledge Transformation (Melnik & Fineout-Overholt, 2011). The theoretical basis for ACE is dependent upon the knowledge “form” in the five specific transformation stages (Melnik & Fineout-Overholt, 2011). According to Melnyk and Fineout-Overholt (2011), they are: 1.) Knowledge discovery, 2.) Evidence summary, 3.) Translation to practice recommendations, 4.) Implementation into practice, and 5.) Evaluation. This final step is evaluative and crucial to incorporate patients, providers, and systems outcomes to verify the EBP success. The model helped establish the CPG for prescribing strong opioids in hospice for EOLC. A formative panel of experts provided explicit feedback with the initial

drafted development of the CPG. Based on feedback from the formative review of the guidance, the CPG was minimally modified to reflect input obtained from the questionnaire of the appraisal tool. The final process, the evaluative stage, consisted of the summative group appraising outcomes with the AGREE II instrumentation. As each group contained highly respected and experienced panelist, the CPG was developed from a substantial amount of substantive feedback strengthening the CPG's validity. The responses obtained from the formative group confirmed a need for the CPG reinforced with an overall 100% approval.

Table 5.

*Delivery of an EBP CPG for Safe and Effective Prescribing Opioids for Adult Hospice Patients*

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*Communication*

- *Inquire about concerns when prescribing opioids for pain about concerns for instance:*
  - *Fears treatment imply*
  - *Side effects*
  - *Addiction*
  - *Tolerance*
- *Provide written and oral information on treatment to carers and patients on strong opioids, with the following:*
  - *When, What, and Why strong opioids are used for pain management*
  - *Possibilities of effectiveness*
  - *Strong opioids for breakthrough and background pain, addressing:*
    - *How, when, and how often to take strong opioids*
    - *Duration of pain relief should last*
  - *Side effects and signs of toxicity*
  - *Proper storage*
  - *Further prescribing and Follow-up and*
  - *After hours information, especially with treatment initiation*
- *Patient accessibility to frequent review of side effects and pain management*

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*Starting Strong Opioids-Dose Titration*

- *With treatment initiation of strong opioids, offer oral immediate or sustained-release (consideration to patient's choice)*
  - *Oral Morphine immediate-release rescue doses with breakthrough pain.*
  - *Careful titration with Comorbidities*
  - *Adjust the dosage until optimal balance exists between side effects and acceptable pain control goals. If unable to reach balance after adjusting the dose a few, seek out a specialist advice. Do frequent patient reviews in the titration phase.*
  - *Obtain specialist advice prior to prescribing strong opioids for patients having moderate or severe liver or renal impairments.*
-

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*First-line Maintenance Treatments*

- *Oral, sustained-release morphine*
- *Avoid frequent prescribing of transdermal patch forms if the oral route is available*
- *If pain is uncontrolled persistently, despite optimizing first-line maintenance dosing, consider specialist advice and review analgesic plan.*

**Table 6.**

*Delivery of an EBP CPG for Safe and Effective Prescribing Opioids for Adult Hospice Patients-Additional Information and Optional Alternative Treatments*

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*First-line Treatment with Transdermal Patches-if Opioids May Not Be given by Mouth*

- *Initiation of transdermal patches are considered with the lowest acquisition patient cost when the oral route may not be given, stable analgesic requirements are stable, and specialist advice when needed.*
- *Caution opioid equivalence for transdermal patches calculations*

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*First-line Treatments with Subcutaneous Delivery-if Oral Opioids Are Not an Option*

- *Consider to subcutaneous opioids initiation with cost acquisition*

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*First-line Treatments for Breakthrough Pain- If the Oral Route is Unavailable with Opioids*

- *If pain remains inadequately controlled despite optimizing treatment, consider seeking specialist advice.*

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*Management of Constipation*

- *Inform patients opioid-induced constipation affects many patients with strong opioid treatments.*
  - *Prescribe laxatives (regularly at effective doses) when beginning strong opioid treatment*
  - *Inform patients constipation treatment takes time and adherence is essential.*
  - *Optimize laxative treatments for constipation prior to switching to strong opioids.*
-

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### *Management of Nausea*

- *Advise patients nausea is possible when initiating strong opioids or with dose increases and it is likely transient.*
  - *With persistent nausea, prescribe and optimize anti-emetics prior to consideration of switching strong opioids.*
- 

### *Management of Drowsiness*

- *Advise patients mild drowsiness or impaired concentration might happen when strong opioids are initiated or with dosage increase, and is often transient. Warn patients impaired concentration might affect their driving ability and undertaking any other manual tasks.*
  - *With patients having persistent or moderate-to-severe central nervous system side effects:*
    - *For uncontrolled pain, consider dosage reduction*
    - *For uncontrolled pain, consider switching opioids*
    - *For pain remains uncontrolled despite optimizing treatment, consider specialist advice.*
- 

### *Clinical Algorithm(s)*

*A full version of this original CPG includes a care pathway document for patients requiring strong opioids for pain management (step 3 of WHO pain ladder).*

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## **ANALYSIS OF SELF**

From a self-reflective view, development of the Capstone allowed personal and professional enrichment from the ensuing integration scholarship and application of transdisciplinary doctoral competencies. I have become consumed with interactive engagements of rigors and nuances, which strengthened my intellectual abilities to positively apply my scholarly plateau of knowledge to the greater good of society. As a practitioner, I feel this theoretical engagement with science has prepared me at the highest level of leadership and doctoral clinical practice. As a project developer, I have reaped relevant benefits from an intellectual novel use of my curiosity by exploring innovative ways to address opioid use. This experiential and pragmatic project has been a most outstanding assignment to display an achievement. The Capstone has suitably brought appropriate closure to my doctoral graduate experiences.

## **CONCLUSIONS AND SUMMARY**

The CPG for hospice patients provides standardized processes for frontline practitioners to prescribe strong opioids with EOLC effectively. Establishing an EBP CPG for EOLC with terminally ill patients standardizes processes for frontline practitioners to have consistency when prescribing stop opioids in hospice programs. The CPC on strong opioids has potential widespread success for several reasons, the EBP CPG: (a) ensure safe prescribing, (b) maximizes the effectiveness of opioids (c) allows for sufficient communication between patients and providers (d) diminishes the likelihood of uncontrolled pain episodes (e) and offers alternatives with strong opioids prescribing for pain management based on specific clinical circumstances with EOLC. The CPG is concise, but comprehensive, covers key content areas, is comprehensive, captures the current clinical state of hospice, meets the stated objectives and goals, and

is appropriate for hospice settings. The CPG addresses all stated objectives and AGREE II domains, as it is a crucial aspect of EOLC in hospices. The CPG promotes safety in working with hospice patients and EOLC. The CPG benefits practitioners from a broader social action process for communities, individuals, and the organization. The CPG may benefit the organization as well as influence a social-political change. The impetus for social change lies within the context of practitioners gaining mastery with adequate opioid prescribing to address national and global concerns with pain management issues. The agency may be a facilitator of implementing the CPG in an environment that improves equity and QOL for adult hospice patients with unmanaged pain. Additionally, frontline practitioners have guidance to optimize achieving adequate pain management, which leads to improved QOL and EOLC outcomes globally.

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## Appendix A: Walden IRB Site Approval Form for QI Doctoral Project and Disclosure to Expert Panelist Form for Anonymous Questionnaires

### APPENDIX A

#### Site Approval Documentation for Quality Improvement Doctoral Project

Partner  
Contact Information  
Date

The doctoral student, [Trenika Alexander-Goreau, B-NP-BC, Doctoral Studies], is involved in a Quality Improvement project at our organization, and is therefore approved to access and analyze internal, deidentified site records that I deem appropriate to release for the student's doctoral project. This approval to use our organization's data pertains only to this doctoral project and not to the student's future scholarly projects or research (which would need a separate request for approval).

I understand that, as per DNP program requirements, the student will publish a scholarly report of this QI project in Proquest as a doctoral capstone (withholding the identity of the site).

The student will be responsible for complying with our organization's internal policies and requirements regarding access and use of site data for QI purposes.

I confirm that I am authorized to approve these activities in this setting.

Signed,

Authorization Official Name

Title  
Manager HR Governance, Compliance & Diversity

#### Disclosure to Expert Panelist Form for Anonymous Questionnaires

*To be given to expert panelist prior to collecting questionnaire responses—note that obtaining a "consent signature" is not appropriate for this type of questionnaire and providing respondents with anonymity is required.*

#### Disclosure to Expert Panelist:

You are invited to take part in an expert panelist questionnaire for the doctoral project that I am conducting.

#### Questionnaire Procedures:

If you agree to take part, I will be asking you to provide your responses anonymously, to help reduce bias and any sort of pressure to respond a certain way. Panelists' questionnaire responses will be analyzed as part of my doctoral project, along with any archival data, reports, and documents that the organization's leadership deems fit to share. If the revisions from the panelists' feedback are extensive, I might repeat the anonymous questionnaire process with the panel of experts again.

#### Voluntary Nature of the Project:

This project is voluntary. If you decide to join the project now, you can still change your mind later.

#### Risks and Benefits of Being in the Project:

Being in this project would not pose any risks beyond those of typical daily professional activities. This project's aim is to provide data and insights to support the organization's success.

#### Privacy:

I might know that you completed a questionnaire but I will not know who provided which responses. Any reports, presentations, or publications related to this study will share general patterns from the data, without sharing the identities of individual respondents or partner organization(s). The questionnaire data will be kept for a period of at least 5 years, as required by my university.

#### Contacts and Questions:

If you want to talk privately about your rights in relation to this project, you can call my university's Advocate via the phone number 612-312-1210. Walden University's ethics approval number for this study is 06-23-17-0415161.


Before you start the questionnaire, please share any questions or concerns you might have.

## Appendix B: Deyta Survey Questionnaire: Hospice Services Inventory

<b>Deyta Survey Questionnaire: Hospice Services Inventory</b>	<b>Yes</b>	<b>No</b>
1. While under hospice care, did the patient have pain?		
2. While receiving hospice care did they get prescriptions for pain?		
3. When receiving hospice services did patient take any prescribed drugs for pain?		
4. Did the patient have enough medicine for their pain?		
5. Did the staff provide education to address medication concerns?		
6. Did you or the family receive any educational information from the hospice team about medications used to manage the patient's pain?		
7. Did you want more information than what you got about medicines used to manage the patient's pain?		
8. As far as you know, did any member of the hospice team speak to the patient/family about medications?		
9. Did the hospice team explain medications in a way you could understand?		
10. Did the caregiver, receive enough instruction to take care of the patient?		
11. Were you confident you knew what to expect with medications given to treat pain?		
12. Were you confident you knew as much as you needed to know about medicines used to manage the patient's pain?		



Appendix C: Medicare COPS, QAPI, and Missoula VITAS QOL Index



National Hospice and Palliative Care Organization


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**The Medicare Regulations for Hospice Care,  
Including the Conditions of Participation for  
Hospice Care  
42 CFR418**

**Current as of July 29, 2011**

**Hospice Provisions from:**

Balanced Budget Act of 1997  
 Balanced Budget Refinement Act of 1999  
 Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000  
 Medicare Program; Revisions to Payment Policies under the Physician Fee Schedule for Calendar Year 2005 – Nov. 16, 2004  
 FY2006 Hospice Wage Index Final Rule – August 4, 2005  
 Medicare Hospice Regulations - Subparts B, F, G - November 22, 2005  
 FY2008 Hospice Wage Index Final Rule – August 31, 2007  
 Medicare Hospice Conditions of Participation - Subparts C and D - June 6, 2008  
 FY2010 Hospice Wage Index Final Rule - August 6, 2009  
 Medicare Program: Home Health Prospective Payment System Rate Update for Calendar Year 2011; Changes in Certification Requirements for Home Health Agencies and Hospices - November 17, 2010  
 Medicare Program; Hospice Wage Index for Fiscal Year 2012 – July 29, 2011



Prepared by  
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**QA + PI = QAPI**

Hospice Services



The diagram illustrates the QAPI (Quality Assurance and Performance Improvement) cycle. It is divided into two main sections: QA (Quality Assurance) and PI (Performance Improvement). The QA cycle includes: Collect Data, Analyze and Report, and Determine Measures. The PI cycle includes: Select PI Projects, Develop PI Plan, Implement PI Plan, and Review & ID 'Gaps'. A central box labeled 'Review & ID "Gaps"' connects the two cycles. A feedback loop labeled 'More Data... ID Drivers of Performance' connects the PI cycle back to the QA cycle.

Hospice Services

**Missoula – VITAS Quality of Life Index:**  
Outcome measure for palliative care

**This tool will benefit us and our patients to:**

- Provide the desired physical comfort and emotional support
- Promote shared medical decision making
- Treat each person as an individual by understanding their needs and expectations
- Attend to the needs of those who care for and love the dying person
- Quality of life/Relationship closure

## Appendix D: Instructions for the Review of the AGREE II Guideline and Rating Scale

Instructions: Please evaluate the guideline utilizing the AGREE II instrument and offer suggestions to enhance development of the guideline.

1. Changes may be applied to the guideline, AGREE II tool, or by comments.
2. Please provide a rationale with any modifications suggested.
3. Please return evaluations today or no later than 14 days.
4. If clarification is desired, please contact me via intranet email or in person.

<b>Explicit scope and purpose</b>	Overall objective(s), clinical questions, and target population is explicated
<b>Stakeholder involvement</b>	Patient(s) are involved in guideline development and all audiences are defined clearly and involved in pilot-testing.
<b>Rigor</b>	Recommendations are linked explicitly to supporting evidence and there is discussion of health benefits or risks.
<b>Development</b>	Recommendations are reviewed externally before publication and development group provides details of updating.
<b>Clarity of presentation</b>	Recommendations are not ambiguous and do consider different possible options; key recommendations are easily identified; and a summary document and patient education materials are provided.
<b>Applicability</b>	Organizational changes, cost implications of applying recommendations and review criteria for monitoring guidelines use are explicated.
<b>Personal Declaration</b>	Views or interests have not influenced final recommendations; members of the guideline group have declared possible conflicts of interest.
<b>Additional Suggestions</b>	<i>Modifications or Comments</i>

### Rating Scale

Each AGREE II item and the two global rating items are rated on a 7-point scale (1-strongly disagree to 7-strongly agree). All items are rated on the following 7-point scale:

<b>1</b> Strongly Disagree	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b> Strongly Agree
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**Score of 1 (Strongly Disagree).** A score of 1 should be given when there is no information that is relevant to the AGREE II item or if the concept is very poorly reported. **Scores 2- 6.** A score between 2 and 6 is assigned when the reporting of the AGREE II item does not meet the full criteria or considerations. A score is assigned depending on the completeness and quality of reporting. Scores increase as more criteria are met and considerations addressed. The “How to Rate” section for each item includes details about assessment criteria and considerations specific to items. **Score of 7 (Strongly Agree).** 7 should be given with exceptional quality reporting.

## Appendix E: AGREE II DOMAINS

**AGREE Instrument****Scope and Purpose**

- Item 1. The overall objective(s) of the guideline is (are) specifically described.
- Item 2. The clinical question(s) covered by the guideline is (are) specifically described.
- Item 3. The patients to whom the guideline(s) are meant to apply are specifically described.

**Stakeholder Involvement**

- Item 4. The guideline development group includes individuals from all relevant professional groups.
- Item 5. The patients' views and preferences have been sought.
- Item 6. The target users of the guideline are clearly defined.
- Item 7. The guideline has been piloted among target users.

**Rigor of Development**

- Item 8. Systematic methods were used to search for evidence.
- Item 9. The criteria for selecting the evidence are clearly described.
- Item 10. The methods used for formulating the recommendations are clearly described.
- Item 11. The health benefits, side effects, and risks have been considered in formulating the recommendations.
- Item 12. There is an explicit link between the recommendations and the supporting evidence.
- Item 13. The guideline has been externally reviewed by experts prior to its publication.
- Item 14. A procedure for updating the guideline is provided.

**Clarity and Presentation**

- Item 15. The recommendations are specific and unambiguous.
- Item 16. The different options for management of the condition are clearly presented.
- Item 17. The key recommendations are easily identifiable.
- Item 18. The guideline is supported with tools for application.

**Application**

- Item 19. The potential organizational barriers in applying the recommendations have been discussed.
- Item 20. The possible cost implications of applying the recommendations have been considered.
- Item 21. The guideline presents key review criteria for monitoring and/or audit purposes.

**Editorial Independence**

- Item 22. The guideline is editorially independent from the funding body.
- Item 23. Conflicts of interest of guideline development members have been recorded.

## Appendix F: Resources

*Accreditation Commission for Health Care (ACHC)*

*Deyta Expert satisfaction surveys*

*Dr. Patrick Albert Palmieri Scholar Focused On Global Nursing Scholarship (DNP Committee/\*URR)*

*Dr. Deborah (Deb) Lewis, (DNP Committee Member/URR)*

*Dr. Marisa L. Wilson DNSc, MHSc, RN-BC, CPHIMS (DNP Committee)*

*Dr. Murielle Beene, (DNP Committee Member)*

*The Joint Commission (TJC)*

*John Hopkins Levels of Evidence Hierarchy*

*Medicare Conditions of Participation (COPS)*

*Missoula VITAS Quality of Life Index*

*National Academy of Sciences*

*National Hospice and Palliative Care Organization (NHPCO)*

*NHPCO Quality Partners Initiatives*

*National Quality Forum [NQF]*

*Outcome Concept Systems (OCS)*

*Quality Assurance (QA) and Performance Improvement (PI)*

*Robert J. Woods Foundation (RJWF)*

*Samuel(S) Herrington*