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Assessing Palliative Care Knowledge Among Medicine/ Pulmonary Intensive Care Unit Staff to Identify Barriers and Increase Palliative Care Referrals

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Assessing Palliative Care Knowledge Among Medicine/Pulmonary Intensive Care Unit Staff to
Identify Barriers and Increase Palliative Care Referrals

Submitted in Partial Fulfillment of the Requirements for the Degree of Doctor of Nursing
Practice at the University of Kentucky

By

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Lexington, Kentucky

2023

Abstract

Background: To conduct a needs assessment to identify areas of opportunity for increased awareness of the interdisciplinary medicine/pulmonary intensive care unit (MICU) staffs' knowledge of palliative care and identify potential barriers to initiating referrals for palliative care consultations. Then provide an educational intervention and assess effectiveness with a post interventions assessment of referrals. The goal of this project is to increase referrals for palliative care consults.

Methods: A pre-/post-survey design will be utilized to assess palliative care knowledge to identify barriers to palliative care consultation referrals. An educational intervention that addresses palliative care knowledge deficits and addresses barriers will be provided between the pre- and post-survey. A prospective and retrospective chart review will also be performed to determine whether the educational intervention results in any change in palliative care referrals for consultations.

Results: Statistical significance was noted in the overall knowledge scores between pre and post survey groups ($p < .001$). Among the pre and post samples, there was a significant association between intubation status and palliative care initiation ($p = 0.047$). Statistical significance was noted between initiation of palliative care services among the pre and post groups ($p = .036$).

Conclusion: Identifying and addressing palliative care barriers with targeted education can be an effective solution. This intervention was effective at increasing palliative care knowledge, initiation, and comfort with patient/family discussions. Addressing how to accomplish greater provider inclusion in future studies will be an integral component to improving palliative care services utilization.

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Dedication

To my best-friend, Paul Broadhead, I dedicate this work to you. I thought I understood the significance of palliative care. It was not until you called me, on that Sunday, that I realized the true significance palliative care.

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Background and Significance

Problem Statement

Palliative care has faced an uphill battle to become an accepted medical specialty. However, many years of hard work and research by dedicated medical professionals have demonstrated how invaluable palliative care is. Initiation of palliative care has been shown to reduce intensive care unit (ICU) length of stay, overall hospitalization, and medical costs, while also improving patient and family satisfaction (Center to Advance Palliative Care, 2021). However, for palliative care to be initiated, there must first be a referral for a palliative care consultation. In general, a physician or advanced practice provider must initiate a referral for a palliative care consult. Due to the intimate nature of nursing, many times it is the nursing staff that suggest to the primary care team that a palliative care referral would be beneficial for a patient (DiGangi Condon et al, 2021). Unfortunately, a lack of knowledge or understanding of palliative care is a key contributory factor to delaying the initiation of referrals for a palliative care consultation (Kalies et al., 2018). When delays occur, patients are more likely to have reduced satisfaction with their hospitalization, spend more days in the ICU, be hospitalized longer, and/or incur greater healthcare costs.

Context, Scope, & Consequences of the Problem

Palliative care is a medical specialty that focuses on improving the care of individuals suffering from serious medical conditions. The purpose of palliative care is to augment a patient's care by focusing on improving quality of life (U.S. Department of Health and Human Services, 2021). Unlike hospice care services, patients may utilize the services of palliative care in conjunction with treatment modalities that are intended to cure their current medical condition. The World Health Organization (2022) estimates that approximately 40 million people use

palliative care services each year. Roughly 80% of the individuals that could benefit from palliative care reside in low to middle income countries, however, and less than 15% of people who require palliative care actually benefit from these services. The three most common diagnoses associated with a need for palliative care are cardiovascular disease, cancer, and chronic respiratory diseases: 38.5%, 34%, and 10.3% respectively (World Health Organization, 2022).

Palliative care service initiation results in substantial savings for hospitalized patients and healthcare organizations. On average, a palliative care consult in the U.S. results in a \$3,300 savings per admission. For a cancer patient, the amount saved is even higher, around \$4,200, and initiating palliative care for a patient with four or more diagnoses yields a savings of \$4,900. These cost reductions also benefit healthcare organizations. A medium sized healthcare organization can save approximately \$1.5 million annually. Palliative care services are also responsible an almost 50% reduction in readmissions and a roughly 30% reduced cost per day (Center to Advance Palliative Care, 2021). In conclusion, there is strong evidence that appropriate referrals for palliative care consultations result in increased patient and healthcare organization benefits.

Current Evidence-Based Practice

Current strategies for increasing referrals for palliative care consults focus on providing education to improve palliative care knowledge and utilizing a standardized screening tool to aid in identifying patients with palliative care needs (Myers, 2019). The strategy of utilizing a standardized screening tool has been shown to be successful at increasing palliative care consultation referrals (Roach, 2017). Strategies utilizing education have only proven to be successful at increasing levels of knowledge related to palliative care. Other strategies have introduced the use of nurse-driven protocols. Unfortunately, three major issues were found to occur with the use of nurse-driven protocols. Firstly, nurses would still defer to providers. Second, there

is often pushback to nurse-driven protocols, and miscommunication errors can occur as well. These complications have created a situation in which the use of nurse-driven protocols is inconsistent (DePuccio et. al., 2020). However, it is worth noting that this intervention has primarily targeted bedside nurses, and the decision to place a referral to palliative care lies with the providers. With this evidence, future interventions would benefit from targeting both the bedside nurses and the providers.

Purpose and Objectives

Given that failing to provide a referral for a palliative care consult can result in increased healthcare costs, prolong hospitalization, and poor patient satisfaction, the purpose of this project is to increase referrals for palliative care consults among Medicine Intensive Care Unit (MICU) patients. The specific aims of this project are:

1. To assess current knowledge levels of providers and nurses related to palliative care,
2. To assess comfort levels of providers and nurses regarding initiating a referral for a palliative care consult, and
3. To identify potential barriers to initiating a referral for a palliative care consultation.
4. To increase initiation of palliative care referrals by providing targeted education to reduce identified barriers to initiating a referral for palliative care.

Theoretical Framework

Lewin's change theory of nursing was utilized to implement interventions for the purpose of increasing referrals for palliative care consults. The Change Theory of Nursing has three distinct stages: (1) unfreezing, (2) changing, and (3) refreezing (Petiprin, 2020). Following these three distinct stages allows for health care team members to change their behaviors, thoughts, and feelings on current practice and form new habits (Wojciechowski et al., 2016).

The first stage, unfreezing, emphasizes identifying problems within the current practice. The purpose of this stage is to allow for identification of healthcare team members' old habits and allow for new habits to be formed through new knowledge and understanding. In this project, this stage helped clarify providers', nurse care technicians' (NCTs), respiratory care therapists' (RCTs), and nurses' knowledge and comfort levels regarding referrals for palliative care consults. In the second stage, change, an intervention is designed with the intention of changing the current practice to one that would be more beneficial (Hussain et al., 2018). To achieve this stage, targeted palliative care education and resources were provided to health care team members to increase knowledge and change perceptions related to palliative care. Completing this stage aids in creating a change in thoughts, feelings, and behavior. In the third stage, refreezing, the goal is to ensure that the newly learned information becomes the standardized practice (Hussain et al., 2018). Education of health care team members was validated to verify an increase in knowledge and/or a change in perception of palliative care services. This stage enforces the new knowledge and allows formation of new practices and prevents regression to previously ineffective thinking patterns or practices (Petiprin, 2020).

Synthesis of Evidence in Literature

PICOT Question and Search Methods

This review was conducted to identify gaps in practice and evidence to support implementing methods to increase referrals for palliative care consults in MICU patients. The PICOT question that guided this review was: In the MICU patient population (P), how does identifying barriers and providing bedside registered nurses, NCTs, RCTs, and providers with palliative care education (I) compared to baseline knowledge (C) affect referrals for palliative care consults (O) within three months (T). The Cumulative Index to Nursing and Allied Health

Literature (CINAHL) database was utilized to conduct a search to identify gaps in the research on palliative care consult referrals. Relevant articles were located using the search terms “palliative care,” “protocol,” “nurse,” “physician,” “knowledge,” “referrals,” and “critical care.” Research was limited to articles published within the last ten years.

Review, Analysis, and Synthesis of Evidence

Eleven studies demonstrated support for the PICOT question. Three studies were conducted using multiple units in a hospital setting. Three studies were conducted in ICUs, one study utilized an oncology unit, and four studies assessed the impact of implementing a palliative care education intervention. Six studies followed a cross-sectional design. Of the remaining studies, two were systematic reviews, one was a retrospective cohort study, one was a qualitative study, and one was a mixed methods study. Four of the studies had no intervention. Of these studies, three assessed bedside nurse knowledge, attitudes, and comfort with palliative care. One of these studies assessed provider knowledge and attitudes towards palliative care. Two studies assessed the effectiveness of palliative care screening tools. The remaining four studies focused on educational interventions. The screening tool studies focused on identifying patients with palliative care needs. The education-based studies focused on increasing bedside nurse palliative care knowledge.

Summary and Strength of Evidence

Six of the studies found that providing palliative care training/education led to increased levels of knowledge related to palliative care (De Campos, 2021; Hansen, 2021; Harden et al., 2017; Walia et al., 2020; Yuzar et al., 2021). One of these studies found that providing didactic education to health care team members has been shown to increase knowledge levels by 94% (Lafond et al., 2022). Providing education with in-person training sessions is the most common

method. However, when in-person education sessions are not possible, web-based training sessions have been shown to be an accessible alternative (Nadeau et al., 2020).

Providing health care team members with a web-based palliative care education module results in a statistically significant improvement of palliative care knowledge when pre and post tests are compared (Kudubes & Bektas, 2020). Two of the studies determined that screening tools were effective in identifying patients with palliative care needs (Martz et al., 2020; Venis, & Dodek, 2020). One study demonstrated that educating providers on palliative care led to a decrease in perceived barriers and reluctance to initiate a palliative care consult (Enguidanos et al., 2021). Overall strength of the studies reviewed for the purposes of this study was good. Two studies were level I, two were level II, four were level III, two were level V, and one was level VI.

Current State, Desired State, and Gaps in Practice

Currently, palliative care is underutilized and baseline knowledge among RNs, NCTs, RCTs, and providers requires improvement. To reach the desired state, palliative care knowledge needs to be improved. This will allow for increased utilization of palliative care services and a reduction in the amount patients not recognized for these services. Current gaps are related to palliative care knowledge, lack of a universal screening tool, and missed referrals for patients with palliative care needs (De Campos, 2021; Enguidanos et al., 2021; Hansen, 2021; Harden et al., 2017; Martz et al., 2020, Venis, & Dodek, 2020; Walia et al., 2020; Yuzar et al., 2021).

How Project Addresses Gaps

This project aims to address these practice gaps by assessing current palliative care knowledge and barriers among MICU bedsides nurses, NCTs, RCTs, and providers. The goal is to utilize the information discovered from this process to design an appropriate targeted education

intervention to reduce barriers, improve palliative care knowledge, improve interdisciplinary collaboration, and increase referrals for palliative care consultations.

Design of the Study

The design of this DNP study is a pre- and post-survey design with targeted palliative care education delivered following the pre-survey. The palliative care education will be tailored to address identified barriers to initiating palliative care referrals. Following the post-survey, learning will be assessed to determine whether new knowledge was gained from the educational intervention. Finally, a retrospective and prospective chart analysis will be performed to determine whether targeted education on palliative care barriers has had an impact on palliative care referrals.

Setting

The setting for this project is the MICUs within the University of Kentucky's Albert B. Chandler Hospital and UK's Good Samaritan Hospital in Lexington, Kentucky. The University of Kentucky's Albert B. Chandler Hospital is a 569-bed level-1 trauma center, acute care hospital. UK's Good Samaritan Hospital is a 180-bed acute care hospital. The MICU health care team includes: Providers, nurses, NCTs, and RCTs. The MICU sees a variety of critically ill patients with a wide variety health conditions.

Agency Description and Congruence

UK HealthCare is committed to research, education, and clinical care. UK HealthCare's mission statement is: "strengthen local health care and improve the delivery system by partnering with community hospitals and physicians" and to "support the organization's education and research needs by offering cutting edge services on par with the nation's best providers" (University of Kentucky, 2022). Their mission is guided through the "DIReCT Values; **Diversity:** We foster a people-centered environment that is inclusive of all. **Innovation:** We embrace

continual learning and improvement to drive positive change. **Respect:** We value our patients and families, our community, our co-workers, ourselves, and the resources entrusted to us. **Compassion:** We express empathy for the needs, thoughts, and feelings of those we serve and with whom we work. **Teamwork:** We cultivate and maintain meaningful relationships to create positive outcomes” (University of Kentucky, 2022). The tenets of palliative care follow very closely with these values and this DNP project may contribute to advancing these values. The intention of this study is to educate MICU health care team members on palliative care, the importance of initiating palliative care referrals, and increasing the use of palliative care services.

Description of Stakeholders

Stakeholders are a vital aspect to successful implementation and development of any study. This DNP project will have the providers, nurses, NCTs, and RCTs as stakeholders within the MICUs at UK Chandler Hospital and UK Good Samaritan Hospital. The stakeholders were essential in assisting with the implementation, planning, and sustainability of the project. The DNP advisory committee was formed with four members: Dr. Sheila Melander (faculty advisor/committee chair), Dr. Candice Falls (committee member), Dr. Anna Kalema (clinical advisor/MICU attending physician), and Ryan McKendrick (PI/DNP student). Additional stakeholders within the MICU who have agreed to support the implementation of this proposed DNP project include Ron Simpson, Adam Gould, and Jenny Renaud (MICU management team). The stakeholders that chose to participate in this project helped to increase palliative care knowledge among themselves and coworkers. This new knowledge will help MICU health care members to better serve their patient population.

Barriers & Facilitators to Implementation

Potential barriers to implementation of this DNP project include: pushback from providers without buy-in, staff perception of time/responsibilities, ability to complete the survey and education intervention, and survey fatigue (Mathieson et al., 2019). To address these barriers, committee members, providers with buy-in, and MICU management worked to coordinate survey distribution and reduce education session interference with work responsibilities. Facilitators that will assist with this DNP project include MICU leadership and providers that have buy-in, and individuals that completed the pre-/post-surveys and participated in the targeted education intervention.

Sample

Sampling occurred from a convenience sample of greater than 200 interdisciplinary staff from the MICUs at UK Chandler Hospital and UK Good Samaritan Hospital. This target population will include: 1.) Attending Physicians, Fellows, Advance Practice Registered Nurses (APRNs), and Resident Physicians; 2.) Registered Nurses (RNs) and Nursing Care Techs (NCTs); 3.) Respiratory Care Therapists (RCTs). Inclusion criteria will include: 1.) Occupations listed above; 2.) contracted travel RNs, NCTs, or RCTs; 3.) full or part time; 4.) medical MICU ancillary staff. Exclusion criteria will include: 1.) Medical, RN, or RCT students; 2.) non-medical ancillary staff; 3.) non-MICU RNs/NCTs (e.g., float pool staff). The sample for the chart survey will be drawn from MICU patients that received a palliative care consult.

Procedure

IRB Approval

A proposal was submitted to the UK Medical Institutional Review Board (IRB) and the Nursing Research Council at UKHC. Approval for this project was granted after a final IRB review

on 10/17/2022 (IRB #81067). Any modifications to this study were reviewed and approved by the University of Kentucky IRB prior to implementation. This project was able to proceed within the MICUs of UK Chandler hospital and UK Good Samaritan Hospital with the permission and support of MICU management. Letters of support for this project were provided by Dr. Anna Kalema (MICU attending) and Ron Simpson (MICU manager).

Description of Evidence-Based Intervention

Discussions with UK MICU health care team members and a literature review were performed to determine the gap in practice. The identified gap was related to potential barriers to initiating palliative care referrals for consultations. The palliative care knowledge test (PCKT) was employed to assess knowledge related to palliative care. A survey was also administered to determine demographic information. This survey included a Likert scale with categories related to barriers and attitudes towards palliative care. Information obtained from the pre-survey was utilized to tailor appropriate palliative care education that addressed identified barriers and palliative care knowledge deficits.

When creating tailored palliative care education, it is important to consider that many members of the interdisciplinary health care team have a deficit in knowledge related to palliative care and that this deficit in knowledge may result in aggressive patient treatments (Achora & Labrague, 2019; Bateni et al., 2018). Educational materials were created in Power Point (PPT) and infographic formats. These materials were sent out in an email to MICU health care staff members for personal review. Educational materials were also reviewed in small group and one-to-one in person sessions. The infographic included information a step-by-step guide on how to locate and access UKHC palliative care guidelines on CareWeb. The educational materials on the PPT highlighted the difference between palliative and hospice care, education on pain and opioids,

dyspnea, psychiatric, and gastrointestinal PCKT domains. Information on a modified version of the SUPER framework was also provided (Nous Foundation, 2022). This stepwise communication strategy was included to address communication barriers identified among health care staff members.

Measurements and Instruments

Initial approval for the pre-/post-surveys distributed for the purposes of this study was obtained from the project's DNP committee. These surveys were then reviewed and approved by the IRB. The pre-/post-surveys were distributed electronically utilizing the ListServ email list provided by MICU management. Potential participants were emailed an IRB approved cover letter with information that detailed the purpose, survey, process, methods, risks, and benefits of participating in the study. The email also included contact information for the primary investigator and the Office of Research Integrity. Choosing to follow the link within the email demonstrated consent on part of the participant for the pre-/post-survey.

The IRB-approved cover letter (see Appendix A) was sent in the initial email, along with the link to the pre-survey (see Appendix B). The pre-survey was designed to gather demographic information, determine baseline palliative care knowledge, identify barriers, and attitudes towards palliative care. Baseline palliative care knowledge was assessed utilizing the PCKT. The PCKT is a validated instrument designed to test palliative care knowledge of nurses and providers. This instrument allows for the identification of palliative care knowledge, evaluation of educational needs, and may assist with development of policies to improve the quality of palliative care (Nakazawa et. al., 2009). The PCKT assesses knowledge using 20 true or false questions. Eleven Likert scale questions were used to identify attitudes and barriers related to palliative care.

Additionally, two open response questions were also included to identify barriers and attitudes. The pre-survey was left open for completion for four weeks.

The post-survey (see Appendix C) was distributed, upon completion of the educational intervention, utilizing the ListServ email list provided by MICU management. Methods for distribution of the post-survey followed the same criteria as the pre-survey. The post-survey contained demographic questions, the PCKT, and four Likert scale questions to determine the efficacy of targeted educational intervention. The post-survey was left open for completion for three weeks.

Data Collection

Initial data collection occurred after the pre-survey had been administered and closed. The pre-survey was closed approximately 28 days after it was initially emailed to MICU health care members. Data collection for the post-survey reduced from 28 to 21 days after its initial distribution. Early closure of the post-survey was due to a sharp decline in participation and project timeline constraints. Data results for both the pre-/post-survey were collected and managed in Qualtrics. Qualtrics is a secure web-based application for online surveys. Responses from the pre-/post-surveys were automatically recorded and uploaded to the primary investigator's password protected Qualtrics account.

The final part of data collection was initiated two months following the completion of the post-survey. Retrospective and prospective chart reviews were performed by the Center for Clinical and Translational Science (CCTS) and delivered to the primary investigator for final review. Retrospective and prospective chart reviews were performed to aid in determining the effectiveness of targeted education in addressing identified palliative care barriers.

Data Analysis

Data was analyzed utilizing a descriptive analysis to review variables of interest. Pre-survey data were analyzed initially to create targeted palliative care education material. Potential changes in knowledge, attitudes, and perceived barriers were measured between pre- and post-test scores using paired t-tests, Chi squared tests, and Mann Whitney U tests. Statistical Package for the Social Sciences (SPSS) was utilized to perform data analysis with an alpha level of $p < 0.05$.

Results

Sample Demographics

The majority of survey participants were female (70.6%), registered nurses (89.3%), and in full time employment (72.9%). Most survey participants had >5 years ICU experience (44%) and the predominant level of education for survey participants was a bachelor's degree (64.3%) (see Table 1).

The charts of 522 and 475 patients were reviewed for the pre and post periods, respectively. Of the charts reviewed, $n = 62$ (see Table 2) for pre period patients who received a palliative care consultation order and $n = 57$ for post period patients who received a palliative care consultation order. The mean age of the pre period patients who received a palliative care consultation was 56.7 years ($SD = 16.2$). The mean age of the post period patients was 58.7 years ($SD = 15$).

Survey Results

There was a statistically significant increase in the overall knowledge scores between pre and post survey groups ($p < .001$; see Table 3). Pre-survey knowledge scores were 53 ($SD = 14.7$), while post-survey knowledge scores increased to 69 ($SD = 19.5$). Statistical significance was noted on individual questions in the domains of philosophy, pain and opioids, dyspnea, psychiatric, and GI problems (see Table 4). From the domain of philosophy, Q2 had a statistically significant

increase ($p = .044$). In the pain and opioids domain, a statistically significant increase was noted in Q3 ($p = .049$). Q4, Q6, and Q7 all yielded statistically significant increases ($p < .001$), as did Q8 ($p = .005$). Within the dyspnea domain, statistically significant increases were noted in Q10 ($p < .001$) and Q12 ($p = .006$). All questions within the psychiatric domain had statistically significant increases: Q13 ($p = .02$), Q14 ($p = .002$), Q15 ($p = .011$), and Q16 ($p = .038$), as did all questions within the GI domain. The same statistically significant increase was noted in Q17 and Q20 ($p < .001$). Statistical significance for Q18 ($p = .035$) and Q19 ($p = .006$) was also noted (see Table 4).

Pre-survey participants (86.9%; see Table 5) believed that patients who could benefit from palliative care services were missed. Most pre-survey participants (88.4%) believed that a standardized palliative care needs assessment tool would be beneficial. The majority of post-survey participants (87.9%) reported that after completing targeted education on palliative care barriers, they felt more confident with the idea of initiating referrals for palliative care consults.

The open response questions from the pre-survey, related to barriers and benefits, were grouped into themes. Of the survey participants who started the pre survey ($n = 85$), 43 responded to the question, “What do you perceive to be barriers to initiation of palliative care referral or consult within the ICU?” and 45 responded to the question, “What do you believe are the benefits of early palliative care in critically ill adult patients?” The identified barriers related to palliative care were family/family knowledge, palliative care knowledge, provider comfort, confusion between palliative care and hospice, and policy knowledge/comfort. Benefits of palliative care that were identified include improvement of pain/symptom management, improved patient/family relationship with healthcare staff, and patient autonomy.

Chart Review Results

Paired t-tests were performed to compare pre and post periods to aid in determining whether the targeted palliative care education had accomplished any statistically significant differences. The distribution among male and female patients that received palliative care consults remained consistent. No statistical significance was noted between sex for pre or post groups regarding palliative care consultation ($p = 0.96$; see Table 1). Among the patients that received palliative care consults, statistical significance was noted for cardiac and pulmonary diagnoses in pre and post groups ($p = 0.02$; see Table 1). Among the pre and post samples, there was a significant association between intubation status and palliative care initiation ($p = 0.047$). Among those that were intubated, 55% received PC initiation, compared to 73% who were not intubated. Looking at the pre and post samples separately, the same direction was observed, but there was no statistical significance. There was a statistical significance noted between initiation of palliative care services among the pre and post groups ($p = .036$; see Table 2). Palliative care service initiation increased from 53.2% for the pre-intervention group versus 71.9% for the post-intervention group.

Discussion

The purpose of this study was to assess palliative care knowledge and attitudes among MICU healthcare staff and determine whether creating targeted palliative care education to address identified palliative care barriers would result in an increase in palliative care consult referrals. Palliative care has become an integral part of modern healthcare, implementation with dual medical fellowships that include a palliative care aspect are becoming more prevalent. Nevertheless, the results of this study show that there is still progress to be made.

This study found enhancing baseline palliative care knowledge is an essential component to overcoming barriers. There was a significant increase in the overall knowledge score from the pre- to post-survey groups following implementation of targeted palliative care education. This was also demonstrated by post-survey knowledge increases in all five domains of the PCKT. These findings align with those of other researchers, who found that providing palliative education is a valid method for increasing knowledge levels (De Campos, 2021; Hansen, 2021; Harden et al., 2017; Walia et al., 2020; Yuzar et al., 2021). However, this study was not effective at increasing the overall amount of palliative care consults. Data from this study show that while the overall number of palliative care patient referrals did not increase, the number of consults that converted to initiation of palliative care services were higher. This suggests that the targeted palliative care education to address barriers was beneficial for improving identification of patients appropriate for palliative care services.

The most frequently reported barriers to palliative care referrals were patient and family knowledge of palliative care, staff knowledge of palliative care, provider comfort, confusion between palliative care and hospice, and knowledge and/or comfort with hospital policies. These findings are consistent with other studies conducted on palliative care (De Campos, 2021; Martz et al., 2020; & Enguidanos et al., 2021). Comfort with discussing palliative care needs was identified as a barrier during the pre-survey. The SUPER framework was modified to fit the needs of the MICU health care staff to address this barrier (Nous Foundation, 2022). After the implementation of this intervention, most post-survey staff reported increased comfort levels. While APPs did participate in this study, no physician participation was documented. Permission for resident and fellow physicians was not able to be obtained in a timely enough manner for inclusion in this study. One of the ways to ensure that patients' palliative care needs are met is by

providing healthcare professionals with adequate education (Heath et al., 2020). Many of the survey participants identified that improved pain/symptom management was one the benefits of palliative care. This finding suggests a good base for understanding is available to be built upon. The other reported benefits were improved staff relationships with patients and/or family and increased patient autonomy.

This study showed no bias in the selection of patients for palliative care referrals. No significant differences were found in sex, age, or intubation status with regard to palliative care referrals. This study found that MICU patients diagnosed with cardiac and respiratory conditions were the most likely to receive a palliative care consult. These findings are consistent with those of the World Health Organization (2022). No significant differences were found when comparing ICU or hospital length of stay; however, this finding may have been influenced by the timeline restrictions and contrasts with findings in other studies (Center to Advance Palliative Care, 2021).

Implications for Future Research

This study found that addressing barriers by providing healthcare members with targeted palliative care education was an effective measure for increasing the quality of patient identification for palliative care services. However, future researchers should consider each unit's unique requirements and not generalize barriers identified within this study. Interventions should be tailored to meet the specific needs of each population addressed. If this study were to be repeated, more time should be allotted and efforts to include physicians should be enhanced. Ultimately, the decision to request a palliative care consult is the decision of the providers. Their inclusion would provide valuable insight and knowledge into the unique barriers they face.

Many of the pre-survey participants identified patient/family knowledge of palliative care and its confusion with hospice care as a significant barrier. Future studies should focus on inclusion

of patients and/or family. Knowledge from a study such as this may be useful in crafting concise informational charts. This information could be displayed in units with increased need for palliative care services to provide patients and families with vital information to aid in their decision-making process.

Bedside staff reported that comfort with discussing palliative care was a barrier to initiating a palliative care referral. Development of a communication tool to guide discussing palliative care for bedside staff and education on its implementation would be invaluable. This should be combined with giving greater weight to reducing barriers. This could be achieved by future studies developing education for all healthcare workers to improve attitudes and knowledge of palliative care. Expansion of this study to include all ICUs would be beneficial in identifying unique needs between different service lines and improving utilization of palliative care services with the ICU setting.

Limitations

The limitations of this study are varied. This study was conducted utilizing only the MICU service line and did not include any of the other ICUs at UK Albert B. Chandler or Good Samaritan. Confidentiality of the survey prohibited definitive identification of health care team members to include in the targeted palliative care education intervention. The blanket nature of the education delivery, even though spread across multiple day and night shifts, may not have covered all survey participants. It is possible that the post-survey was completed by health care team members that had not received the appropriate education.

This study was conducted over a brief period and retrospective/prospective chart reviews only covered brief periods of time. Retrospective and prospective chart reviews relied on charting accuracy of the individuals involved in patient care to determine whether palliative care was

initiated or not. The study timeline also limited the ability of this study to determine whether a long-term change in attitudes or barriers related to palliative care among health care staff members occurred.

This study was conducted from October 2022 to February 2023. Even though the effects of COVID-19 were not as significant during the study period, many of the nursing staff employed within the MICU were travelling nurses. These travelling staff members email information was not included in the listserv and were unable to participate. This diminished the amount of overall potential survey participants. Permission for the inclusion of resident and fellow physicians was not able to be obtained within the time constraints of this project. This resulted in a reduced number of potential physician participants and valuable information on their unique perspective.

Conclusion

The importance and impact of palliative care services continue to be understated. Research has demonstrated that even though the need for palliative care is increasing, it remains an underutilized service. This results in unnecessary patient and family suffering. This study has shown that identifying and addressing palliative care barriers with targeted education can be an effective solution. This intervention was effective at increasing palliative care knowledge, initiation, and comfort with patient/family discussions. Addressing how to accomplish greater provider inclusion in future studies will be an integral component to improving palliative care services utilization.

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Tables

Table 1: Descriptive summary of survey participant demographic variables

	<i>N</i> = 85
Gender, <i>n</i> (%)	
Male	23 (27.1%)
Female	60 (70.6%)
Non-binary/third gender	1 (1.2%)
Prefer not to say	1 (1.2%)
Employment status, <i>n</i> (%)	
Full-time	62 (72.9%)
WEPP	8 (9.4%)
PRN	15 (17.6%)
Job position, <i>n</i> (%)	
NCT	2 (2.4%)
RCT	3 (3.6%)
RN	75 (89.3%)
APP	4 (4.8%)
Physician	0
ICU experience, <i>n</i> (%)	
<1	10 (11.9%)
1-3	17 (20.2%)
3-5	20 (23.8%)
>5	37 (44%)
Education, <i>n</i> (%)	
Associate's degree	14 (16.7%)
Bachelor's degree	54 (64.3%)
Master's degree	9 (10.7%)
Postgraduate education	1 (1.2%)
Doctorate degree	6 (7.1%)

Table 2: Descriptive summary of patient demographic variables

	Pre (<i>n</i> = 62)	Post (<i>n</i> = 57)	<i>p</i>
Sex, <i>n</i> (%)			.96
Female	28 (45.2%)	26 (45.6%)	
Male	34 (54.8%)	31 (54.4%)	
Age, <i>mean</i> (SD)	56.7 (16.2)	58.7 (15.0)	.25
Primary diagnosis, <i>n</i> (%)			.02
Cardiac	24 (38.7%)	34 (59.6%)	
GI	2 (3.2%)	2 (3.5%)	
Hepatic	1 (1.6%)	5 (8.8%)	
Neuro	1 (1.6%)	2 (3.5%)	
Pulmonary	25 (40.3%)	13 (22.8%)	
Renal	6 (9.7%)	0	
Vascular	3 (4.8%)	1 (1.8%)	
Hospital length of stay, <i>median</i> (IQR)	15.6 (7.6-33.1)	15.6 (11.1-24.2)	.77
ICU length of stay, <i>median</i> (IQR)	6.6 (2.9-13.9)	9.9 (4.6-15.1)	.06
Palliative care initiation, <i>n</i> (%)			.036
Yes	33 (53.2%)	41 (71.9%)	
No	29 (46.8%)	16 (28.1%)	
Intubation status, <i>n</i> (%)			.05
Yes	38 (61.3%)	33 (57.9%)	
No	24 (38.7%)	24 (42.1%)	

Table 3: Summary of pre and post survey knowledge scores

	Pre <i>mean</i> (SD)	Post <i>mean</i> (SD)	<i>p</i>
Knowledge score	53 (14.729)	69 (19.524)	<.001

Table 4: Descriptive summary of pre and post survey PCKT variables

Domain and question number		Pre-survey correct answers	Post-survey correct answers	<i>p</i>
Philosophy				
Q1	Palliative care should only be provided for patients with no curative treatments available?	74.1%	85.9%	<i>.08</i>
Q2	Palliative care should not be provided along with anti-cancer treatments?	74.1%	87.5%	<i>.044</i>
Pain and Opioids				
Q3	One of the goals of pain management is to get a good night's sleep?	70.6%	84.4%	<i>.049</i>
Q4	When cancer pain is mild, pentazocine should be used more often than an opioid?	5.9%	31.3%	<i><.001</i>
Q5	When opioids are taken on a regular basis, non-steroidal anti-inflammatory drugs should not be used?	62.4%	73.4%	<i>.15</i>
Q6	The effect of opioids should decrease when pentazocine or buprenorphine hydrochloride is used together after opioids are used?	17.6%	46.9%	<i><.001</i>
Q7	Long-term use of opioids can often induce addiction?	15.3%	48.4%	<i><.001</i>
Q8	Use of opioids does not influence survival time?	31.8%	54.7%	<i>.005</i>
Dyspnea				
Q9	Morphine should be used to relieve dyspnea in cancer patients?	67.1%	81.3%	<i>.053</i>
Q10	When opioids are taken on a regular basis, the use of opioids to relieve dyspnea will cause respiratory depression?	40.0%	70.3%	<i><.001</i>
Q11	Oxygen saturation levels are correlated with dyspnea?	43.5%	59.4%	<i>.056</i>
Q12	Anticholinergic drugs or scopolamine hydrobromide are effective for alleviating bronchial secretions of dying patients?	62.4%	82.8%	<i>.006</i>
Psychiatric				
Q13	During the last days of life, drowsiness associated with electrolyte imbalance should decrease patient discomfort?	12.9%	28.1%	<i>.02</i>
Q14	Benzodiazepines should be effective for controlling delirium?	18.8%	42.2%	<i>.002</i>
Q15	Some dying patients will require continuous sedation to alleviate suffering?	65.9%	84.4%	<i>.011</i>

Q16	Morphine is often a course of treatment for delirium in terminally ill cancer patients?	37.6%	54.7%	.038
GI				
Q17	At terminal stages of cancer, higher calorie intake compared to early stages is needed?	31.8%	68.8%	<.001
Q18	There is no route except central venous for patients unable to maintain a peripheral intravenous route?	69.4%	84.4%	.035
Q19	Steroids should improve appetite among patients with advanced cancer?	41.2%	64.1%	.006
Q20	Intravenous infusions will not be effective for alleviating dry mouth in dying patients?	30.6%	60.9%	<.001

Table 5: Descriptive summary of pre and post survey Likert scale variables

Questions	Pre (%)	Post (%)
27. Are you aware of UKHC palliative care guidelines?		
a. No	28 (40%)	1 (1.7%)
b. Maybe	32 (45.7%)	10
c. Yes	10 (14.3%)	(16.9%)
		48
		(81.4%)
28. Would you know where to locate any UKHC palliative care guideline on the care web?		
a. No	7 (10%)	N/A
b. Maybe	32 (45.7%)	
c. Yes	10 (14.3%)	
29. Do you feel comfortable initiating palliative conversations with physicians?		
a. Definitely not	3 (4.4%)	N/A
b. Probably not	2 (2.9%)	
c. Might or might not	8 (11.6%)	
d. Probably yes	28 (45.6%)	
e. Definitely yes	28 (45.6%)	
30. Have you ever referred a patient to a physician for a palliative care consult?		
a. Definitely not	16 (23.2%)	N/A

b. Rarely	12 (17.4%)	
c. Probably yes	20 (29%)	
d. Definitely yes	21 (30.4%)	
31. Do you understand your scope of practice related to initiating a referral or consult for palliative care?		
a. No	12 (17.4%)	N/A
b. Maybe	23 (33.4%)	
c. Yes	34 (49.3%)	
32. Do you feel comfortable discussing palliative care with patients and/or family members?		
a. Extremely uncomfortable	3 (4.4%)	0
b. Somewhat uncomfortable	7 (10.1%)	7 (12.1%)
c. Neither comfortable nor uncomfortable	9 (13%)	5 (8.6%)
d. Somewhat comfortable	38 (55.1%)	32
e. Extremely comfortable	12 (17.4%)	(55.2%)
		14
		(24.1%)
33. Do you think palliative care services are appropriately used within the ICU?		
a. Definitely not	7 (10.1%)	N/A
b. Probably not	25 (36.2%)	
c. Might or might not	15 (21.7%)	
d. Probably yes	20 (29%)	

e. Definitely yes	2 (2.9%)	
34. Do you believe that patients that could benefit from palliative care services are missed?		
a. Definitely not	0	N/A
b. Probably not	1 (1.5%)	
c. Might or might not	8 (11.6%)	
d. Probably yes	29 (42%)	
e. Definitely yes	31 (44.9%)	
35. How often should a patient be assessed for palliative care needs?		
a. Once per shift	27 (39.1%)	
b. Once per day	25 (36.2%)	N/A
c. Every other day	12 (17.4%)	
d. Once per week	5 (7.3%)	
Who can refer a patient to the primary care team for a palliative care consult?		
a. NCT	0	0
b. RCT	0	1 (2.4%)
c. RN	41 (59.4%)	24
d. All of the above	28 (40.6%)	(58.5%)
		16 (39%)
Do you believe that a palliative care needs assessment tool would be beneficial?		

a. Definitely not	0	
b. Probably not	0	N/A
c. Might or might not	8 (11.6%)	
d. Probably yes	32 (46.4%)	
e. Definitely yes	29 (42%)	
After completing education related to palliative care barriers, do you feel more confident in initiating a referral for a palliative care consult?		
a. Definitely not	N/A	0
b. Probably not		7 (12.1%)
c. Might or might not		27
d. Probably yes		(46.6%)
e. Definitely yes		24
		(41.4%)

Appendix

Appendix A

IRB Approved Cover Letter

Assessing Palliative Care Knowledge Among Medicine/Pulmonary Intensive Care Unit Staff to Identify Barriers and Increase Palliative Care Referrals

Dear MICU Healthcare Staff Member, I, Ryan McKendrick, am contacting you from the University of Kentucky College of Nursing. Due to the research that I am working on at the University of Kentucky College of Nursing, I am inviting you to take part in a research study about identifying potential barriers related to initiating palliative care referrals in MICU patients. I am asking you to participate in this research project as you are a healthcare team member within the MICU. Although you may not get personal benefit from taking part in this research study, your responses may help me to understand more about barriers related to initiating referrals for palliative care consults. Some volunteers experience satisfaction from knowing they have contributed to research that may possibly benefit others in the future.

I will review and collect information from your survey responses. After the pre- and postsurvey, I will be performing a retrospective chart analysis of patient records to determine if there is a difference between palliative care referral pre/post education. Study participants that complete the pre-survey, education, and post-survey will be given the opportunity to be entered to win a \$50 gift card. To be eligible to win one of ten \$50 gift cards, you must complete this survey and the post-survey that will be delivered via email at later date. Chances of winning 1 of the 10 gift cards will vary depending on the exact amount of research participants. Gift card

winners will be chosen at random and contacted via the provided email with details on how to collect the gift card.

Your participation in this research study will last about 30-60 minutes. This time will be split between the pre-/post-survey (estimated 10 minutes) and educational intervention (estimated 15-20 minutes). Your response to the survey will be kept confidential to the extent allowed by law. When I write about the study you will not be identified. I am hoping to have 200 MICU healthcare employees enroll in the survey, your answers are important to me. Of course, you have a choice about whether or not to complete the survey, but if you do participate, you are free to skip any questions or stop participation at any time. You will not be penalized in any way for skipping or discontinuing the survey.

The risks involved in this survey are minimal. There is potential for breach of confidentiality, however, this is reduced as the survey is confidential and does not collect any identifying information that is plausible to identify any one individual (i.e. we will not collect names, date of birth, email addresses, IP addresses, etc.) nor will the optional email opting for gift card drawing be linked to individual responses. In no way will participation in this study influence your performance evaluation or job duties within the UK HealthCare and/or Good Samaritan MICU.

Please be aware, while I make every effort to safeguard your data once received from the online survey company, given the nature of online surveys, as with anything involving the Internet, I can never guarantee the confidentiality of the data while still on the survey company's servers, or while en route to either them or I. It is also possible the raw data collected for research purposes will be used for marketing or reporting purposes by the survey/data gathering

company after the research is concluded, depending on the company's Terms of Service and Privacy policies.

There are no personal benefits from taking part in this study however, your responses may help myself and future researchers understand more about the current knowledge, attitudes, and perceived barriers of nursing staff within the MICU. Additionally, your responses may contribute to the design of future interventions for healthcare workers and researchers that aim to address these gaps in nursing education and patient care.

Should you choose to participate in this study should only incur costs related to this study if they are completing the Qualtrics survey on a device that they are required to pay an individual fee for data usage. Otherwise, no cost to participants should occur. You will be ineligible for this study if you are not a healthcare team member of the Medicine/Pulmonary ICU or under the age of 18.

You will not be required to provide your name on the survey so your responses will be confidential. Whenever data from the study is presented or published, analysis will be aggregated such that no individual responses will be identifiable. Results gathered from this study may be used to inform future studies, particularly for the development of educational programs and quality improvement practices within the MICU.

By selecting the arrow to move forward past this cover letter, you are agreeing to participate in this study. Thank you in advance for your assistance with this important project.

If you have questions about the study, please feel free to ask; my contact information is given below. Thank you in advance for your assistance with this important project. By selecting the link to move forward past this cover letter, you are agreeing to participate in this study. Thank you in advance for your assistance with this important project. To ensure your

responses/opinions will be included, please complete your survey within 4 weeks of receiving this email.

Survey Link: https://uky.az1.qualtrics.com/jfe/form/SV_6QJfzHfYRUwmSQS

Sincerely, Ryan McKendrick, BSN, RN

College of Nursing, University of Kentucky

PHONE: 321-501-5878

E-MAIL: RMC267@uky.edu

Faculty Advisor: Sheila Melander PhD, APRN, ACNP-BC, FCCM, FAANP, FAAN

E-MAIL: Sheila.melander@uky.edu

If you have any concerns or questions about your rights as a volunteer in this research, contact staff in the University of Kentucky (UK) Office of Research Integrity (ORI) between the business hours of 8am and 5pm EST, Monday-Friday at 859-257-9428 or toll free at 1-866-400-9428.

Appendix B

Pre-test Survey

1. How do you identify yourself?

- a. Male
- b. Female
- c. Non-binary/third gender
- d. Prefer not to say

2. What is your employment status?

- a. Full time
- b. WEPP (weekends only)
- c. PRN

3. What is your position within the ICU?

- a. NCT
- b. RCT
- c. RN
- d. Advanced Practice Provider
- e. Physician

4. How many years of ICU experience do you have?

- a. <1
- b. 1-3

c. 3-5

d. >5

5. What is your highest level of education?

a. Associates Degree

b. Bachelor's Degree

c. Master's Degree

d. Postgraduate Education

e. Doctorate Degree

6. How would you rate your level of knowledge of Palliative Care?

a. Excellent

b. Good

c. Average

d. Poor

e. Terrible

7. Palliative care should only be provided for patients with no curative treatments available?

a. True

b. False

c. Unsure

8. Palliative care should not be provided along with anti-cancer treatments?

a. True

b. False

c. Unsure

9. One of the goals of pain management is to get a good night's sleep?

a. True

b. False

c. Unsure

10. When cancer pain is mild, pentazocine should be used more often than an opioid?

a. True

b. False

c. Unsure

11. When opioids are taken on a regular basis, non-steroidal anti-inflammatory drugs should not be used?

a. True

b. False

c. Unsure

12. The effect of opioids should decrease when pentazocine or buprenorphine hydrochloride is used together after opioids are used?

a. True

b. False

c. Unsure

13. Long-term use of opioids can often induce addiction?

a. True

b. False

c. Unsure

14. Use of opioids does not influence survival time?

a. True

b. False

c. Unsure

15. Morphine should be used to relieve dyspnea in cancer patients?

a. True

b. False

c. Unsure

16. When opioids are taken on a regular basis, the use of opioids to relieve dyspnea will cause respiratory depression?

a. True

b. False

c. Unsure

17. Oxygen saturation levels are correlated with dyspnea?

a. True

b. False

c. Unsure

18. Anticholinergic drugs or scopolamine hydrobromide are effective for alleviating bronchial secretions of dying patients?

a. True

- b. False
- c. Unsure

19. During the last days of life, drowsiness associated with electrolyte imbalance should decrease patient discomfort?

- a. True
- b. False
- c. Unsure

20. Benzodiazepines should be effective for controlling delirium?

- a. True
- b. False
- c. Unsure

21. Some dying patients will require continuous sedation to alleviate suffering?

- a. True
- b. False
- c. Unsure

22. Morphine is often a course of treatment for delirium in terminally ill cancer patients?

- a. True
- b. False
- c. Unsure

23. At terminal stages of cancer, higher calorie intake compared to early stages is needed?

- a. True

b. False

c. Unsure

24. There is no route except central venous for patients unable to maintain a peripheral intravenous route?

a. True

b. False

c. Unsure

25. Steroids should improve appetite among patients with advanced cancer?

a. True

b. False

c. Unsure

26. Intravenous infusions will not be effective for alleviating dry mouth in dying patients?

a. True

b. False

c. Unsure

27. Are you aware of UKHC palliative care guidelines?

a. No

b. Maybe

c. Yes

28. Would you know where to locate any UKHC palliative care guideline on the care web?

- a. No
- b. Maybe
- c. Yes

29. Do you feel comfortable initiating palliative conversations with physicians?

- a. Definitely not
- b. Probably not
- c. Might or might not
- d. Probably yes
- e. Definitely yes

30. Have you ever referred a patient to a physician for a palliative care consult?

- a. Definitely not
- b. Rarely
- c. Probably yes
- d. Definitely yes

31. Do you understand your scope of practice related to initiating a referral or consult for palliative care?

- a. No
- b. Maybe
- c. Yes

32. Do you feel comfortable discussing palliative care with patients and/or family members?

- a. Extremely uncomfortable
- b. Somewhat uncomfortable
- c. Neither comfortable nor uncomfortable
- d. Somewhat comfortable
- e. Extremely comfortable

33. Do you think palliative care services are appropriately used within the ICU?

- a. Definitely not
- b. Probably not
- c. Might or might not
- d. Probably yes
- e. Definitely yes

34. Do you believe that patients that could benefit from palliative care services are missed?

- a. Definitely not
- b. Probably not
- c. Might or might not
- d. Probably yes
- e. Definitely yes

35. How often should a patient be assessed for palliative care needs?

- a. Once per shift
- b. Once per day
- c. Every other day
- d. Once per week

36. Who can refer a patient to the primary care team for a palliative care consult?

- a. NCT
- b. RCT
- c. RN
- d. All of the above

37. Do you believe that a palliative care needs assessment tool would be beneficial?

- a. Definitely not
- b. Probably not
- c. Might or might not
- d. Probably yes
- e. Definitely yes

38. OPEN RESPONSE QUESTION: What do you perceive to be barriers to initiation of palliative care referral or consult within the ICU?

39. OPEN RESPONSE QUESTION: What do you believe are the benefits of early of palliative care in critically ill adult patients?

Appendix C

Post-test Survey

1. How do you identify yourself?

- a. Male
- b. Female
- c. Non-binary/third gender
- d. Prefer not to say

2. What is your employment status?

- a. Full time
- b. WEPP (weekends only)
- c. PRN

3. What is your position within the ICU?

- a. NCT
- b. RCT
- c. RN
- d. Advanced Practice Provider
- e. Physician

4. How many years of ICU experience do you have?

- a. <1
- b. 1-3

c. 3-5

d. >5

5. What is your highest level of education?

a. Associates Degree

b. Bachelor's Degree

c. Master's Degree

d. Postgraduate Education

e. Doctorate Degree

6. How would you rate your level of knowledge of Palliative Care?

a. Excellent

b. Good

c. Average

d. Poor

e. Terrible

7. Palliative care should only be provided for patients with no curative treatments available?

a. True

b. False

c. Unsure

8. Palliative care should not be provided along with anti-cancer treatments?

a. True

b. False

c. Unsure

9. One of the goals of pain management is to get a good night's sleep?

a. True

b. False

c. Unsure

10. When cancer pain is mild, pentazocine should be used more often than an opioid?

a. True

b. False

c. Unsure

11. When opioids are taken on a regular basis, non-steroidal anti-inflammatory drugs should not be used?

a. True

b. False

c. Unsure

12. The effect of opioids should decrease when pentazocine or buprenorphine hydrochloride is used together after opioids are used?

a. True

b. False

c. Unsure

13. Long-term use of opioids can often induce addiction?

a. True

b. False

c. Unsure

14. Use of opioids does not influence survival time?

a. True

b. False

c. Unsure

15. Morphine should be used to relieve dyspnea in cancer patients?

a. True

b. False

c. Unsure

16. When opioids are taken on a regular basis, the use of opioids to relieve dyspnea will cause respiratory depression?

a. True

b. False

c. Unsure

17. Oxygen saturation levels are correlated with dyspnea?

a. True

b. False

c. Unsure

18. Anticholinergic drugs or scopolamine hydrobromide are effective for alleviating bronchial secretions of dying patients?

a. True

- b. False
- c. Unsure

19. During the last days of life, drowsiness associated with electrolyte imbalance should decrease patient discomfort?

- a. True
- b. False
- c. Unsure

20. Benzodiazepines should be effective for controlling delirium?

- a. True
- b. False
- c. Unsure

21. Some dying patients will require continuous sedation to alleviate suffering?

- a. True
- b. False
- c. Unsure

22. Morphine is often a course of treatment for delirium in terminally ill cancer patients?

- a. True
- b. False
- c. Unsure

23. At terminal stages of cancer, higher calorie intake compared to early stages is needed?

- a. True

b. False

c. Unsure

24. There is no route except central venous for patients unable to maintain a peripheral intravenous route?

a. True

b. False

c. Unsure

25. Steroids should improve appetite among patients with advanced cancer?

a. True

b. False

c. Unsure

26. Intravenous infusions will not be effective for alleviating dry mouth in dying patients?

a. True

b. False

c. Unsure

27. Are you able to locate the UKHC palliative care guidelines on CareWeb with more ease following the Piktochart instructions?

a. No

b. Maybe

c. Yes

28. Following the delivery of education materials, what is your comfort level discussing palliative care with patients and/or family members?

- a. Extremely uncomfortable
- b. Somewhat uncomfortable
- c. Neither comfortable nor uncomfortable
- d. Somewhat comfortable
- e. Extremely comfortable

29. Who can refer a patient to the primary care team for a palliative care consult?

- a. NCT
- b. RCT
- c. RN
- d. All of the above

30. After completing education related to palliative care barriers, do you feel more confident in initiating a referral for a palliative care consult?

- a. Definitely not
- b. Probably not
- c. Might or might not
- d. Probably yes
- e. Definitely yes

31. GIFT CARD Giveaway: If you wish to be included in the gift card giveaway, please click the link below.

https://uky.az1.qualtrics.com/jfe/form/SV_2gaOyCqg0paD4bQ

Navigating CareWeb Infographic



Ryan McKendrick
DNP Survey Education

Assessing Palliative Care Knowledge Among Medicine/Pulmonary Intensive
Care Unit Staff to Identify Barriers and Increase Palliative Care Referrals

Navigating CareWeb: Palliative Care Guidelines

Looking for the
Palliative Care
Guidelines? I am
here to help:



1
Open CareWeb and
navigate to Clinician
Links on the right side
of the page. Scroll to
Clinical Practice
Guidelines. Select
Clinical Practice
Guidelines, this will
open the CPM
Guideline page.

Clinician Links

- Adult ICU Drip Card
- AFib HR Over 120 Protocol
- Antibiotics
- Antimicrobial Stewardship
- Apheresis Request Protocol
- Behavioral Standards
- Capacity Command DCR
- Cardiac Post-OP FTE
- Chart Components Order List
- Clinical Laboratory
- Clinical Practice Guidelines
- Clostridium difficile testing algorithm
- Core Measures
- Diet Manual
- Drug Shortages
- Johns Hopkins ABX Guide
- KY Clinic Transport

2
On the left of the
screen select
Guidelines by
Specialty, this will
expand this option.

CPM Guidelines™

Keyword Search

Potential Problems Search

Index

- Welcome
- Guideline Index
- Guidelines by Document Type
- Guidelines by Specialty
- Guidelines by Target Population
- Guidelines by Healthcare Professions
- Abbreviations

3
Scroll down to select
Palliative/Hospice.

CPM Guidelines™

Keyword Search

Potential Problems Search

Index

- Welcome
- Guideline Index
- Guidelines by Document Type
- Guidelines by Specialty
 - Behavioral Health
 - Cardiovascular
 - Gastroenterology
 - Infectious Disease/Immunologic
 - Medical
 - Neonatal Intensive Care
 - Neurology/Neurosurgery/Neuromuscular
 - Nutrition
 - Obstetrics
 - Oncology
 - Orthopaedics
 - Pain Management
 - Palliative/Hospice
 - Pediatrics
 - Procedural
 - Psychosocial
 - Pulmonary
 - Rehabilitation
 - Renal/Urology
 - Surgical
 - Women's Health (includes Gynecology)
 - Wound Ostomy and Continence Nurse (WOCN)
- Guidelines by Target Population
- Guidelines by Healthcare Professions
- Abbreviations

4
This will open the
Palliative/Hospice
Guidelines to be
viewed

Palliative/Hospice

Guideline Title

- Acetaminophen/Aspirin, Intracerebral (Adult)
- Acetaminophen/Aspirin, Intracerebral (Pediatric, Non-OB)
- Breathing Pattern, Ineffective (Adult)
- Breathing Pattern, Ineffective (NICU)
- Breathing Pattern, Ineffective (Pediatric)
- Cardiac Rhythm Management Device (Adult)
- Cardiac Rhythm Management Device (Pediatric)
- Cardiac Resynchronization
- Chronic Kidney Disease/End-Stage Renal Disease (Adult)
- Chronic Kidney Disease/End-Stage Renal Disease (Pediatric)
- Chronic Obstructive Pulmonary Disease
- Driving Patient, Activity
- Fear (Adult)
- Fear (Pediatric)
- Heart Failure (Pediatric)
- Human Immunodeficiency Virus (HIV) Infection/Acquired Immunodeficiency Syndrome (AIDS) (Adult)
- Human Immunodeficiency Virus (HIV) Infection/Acquired Immunodeficiency Syndrome (AIDS) (Pediatric)
- Human Immunodeficiency Virus (HIV) Infection/Acquired Immunodeficiency Syndrome (AIDS) (Perinatal)
- Hyperemesis Gravidarum
- Nausea and Vomiting (Adult)
- Nausea and Vomiting (Pediatric)
- Opoid Dependence/Withdrawal (Adult)
- Opoid Dependence/Withdrawal (Pediatric)
- Pain, Acute (Adult)
- Pain, Acute (Pediatric)
- Pain, Chronic (Adult)
- Pain, Chronic (Pediatric)
- Stem Cell/Bone Marrow Transplant (Adult)
- Stem Cell/Bone Marrow Transplant (Pediatric)
- Stroke Risk (Adult)
- Stroke Risk (Pediatric)