

HONORING PATIENT WISHES: IMPLEMENTING PHYSICIAN ORDERS FOR LIFE SUSTAINING TREATMENT

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SUSTAINING TREATMENT

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This DNP Dissertation Project by **Megan Jackson** has been approved by the committee members below, who recommend it be accepted by the faculty of Hawaii Pacific University in partial fulfillment of the requirements for the degree of Doctor of Nursing Practice.

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## Abstract

### Purpose

Rising healthcare costs are a growing concern for the nation. There are several factors affecting the increased cost of health care. Two major factors are emergency room visits and hospital admissions. Between 20-40% of these patients will have a preventable admission (Browne et al., 2024). Hospital admission rates and the number of emergency room visits are two factors that are important for long-term care facilities. These elements correlate with quality measures through the Center of Medicare and Medicaid. A long-term care facility in Alaska has noticed an increasing number of hospital admissions and emergency room visits in their population over the last two years. This year hospital admission rates for 2024 were 0.49 hospital admissions per resident day which is up from 0.29 in 2023. Emergency room visits are also on the rise. In 2023 there were 0.73 emergency room visits per resident day, by the end of the fourth quarter in 2024 this was elevated to 1.30. The use of physician orders for life sustaining treatment (POLST) forms have shown to benefit long-term care facilities. Jennings (2022) showed those facilities who used POLST forms had higher star ratings by the Centers for Medicaid and Medicare Services, indicating higher quality. Two quality indicators included in this star rating system are hospital admission rates and emergency room usage. POLST forms will help the long-term care population by preventing unnecessary emergency room visits and hospital admissions. Tark (2021) showed that states with fully developed POLST programs had a 12% increase in those who did not return to the hospital or have emergency room visits at the end-of-life. Demonstrating that POLST form completion decreases unwanted and unnecessary emergency room visits and hospital admissions at end-of-life. The gap in literature is identifying what psychosocial factors can help decrease hospital admissions and emergency room visits.

In residents in a long-term care facility how does implementing Physician Orders for Life Sustaining Treatment (POLST) forms compared to prior practice impact the rate of hospital admissions and emergency visits in eight weeks?

## **Implementation Plan**

Implementation took place over an eight-week period. During the first week of implementation staff were educated on the purpose and use of the POLST form using standardized education material through AK POLST. During weeks one through eight the provider met with residents and families to complete POLST forms. During weeks two through eight the provider met with staff once a week to discuss obstacles, questions, and current use of the POLST forms. There was also a provider on call to address any issues regarding POLST forms.

## **Data Collection**

Data was collected by the quality improvement team using facility software and is available for review. Data was analyzed using paired T-test collecting before and after POLST implementation data for hospital admissions and emergency room visits using simple descriptive statistics.

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## Chapter 1

### Introduction to the Project

#### Problem

There has been a national increase in the cost of health care. The increase in health care cost affects everyone from young to old. Two contributing factors to the high cost of health care are hospital admissions and emergency room visits. A large portion of hospital admission and emergency room visits involved the elderly population. Preventing hospital admissions and emergency room visits would help decrease the cost of health care in the United States.

Prior studies have shown that the elderly are at higher risk for hospital admissions and emergency room visits. Browne et al. (2024) state that 20-40% of elderly patients who have emergency room visits are preventable. Long-term care patients are often elderly and are at an increased risk for both hospital admissions and emergency room visits. To help prevent emergency room visits and hospital stays in this population changes need to be made to assess the preventable reasons for hospital admissions and emergency room visits.

Hospital admissions and emergency room visits are not only an important factor in rising health care cost, they are also crucial to long-term care facilities because both are quality measure that impact long-term care. Long-term care facilities are rated based on their quality measures. Facilities are rated using a five star system. This is a public rating system that is published by the Centers for Medicare and Medicaid. The star system is based on three different sources including health inspections, staffing, and quality measurements. These star ratings are often used by families to choose long-term care facilities for their loved ones. Therefore, hospital admissions and emergency room visits affect the rating of long-term care facilities under the category of quality measurements. The number of hospitalizations per resident days and number of emergency room visits per resident days are important per the Center for Medicare and Medicaid (2024) as it may be an indication of the nursing homes quality of care. An elevated number of emergency room visits or hospital stays may be

because the nursing home is not assessing or taking care of their residents well per the Center of Medicare and Medicaid (2024). Ratings are important as they represent the care given at the facility.

A facility in Alaska noted increased rates of hospital admissions and emergency room visits. This was concerning for management as it would have a negative effect on quality outcomes and patient care. It would also cause a change in the facilities star rating on the Center for Medicare and Medicare's care compare website. The increase in hospital admissions and emergency room visits prompted an in depth look at possible causes of hospital admission and emergency room visits along with investigation of ways to prevent further occurrences.

### **Significance**

A skilled care nursing facility in Alaska has seen an ongoing increase in hospital admission rates and emergency room visits over the past year. In the last quarter of 2023, the hospital admission rate for this facility was 0.29 per resident day. In 2024, the hospital admission rate for this facility had increased to 0.49 per resident day. This is a significant increase in hospital admissions. The state average during this time for hospital admissions was 1.12, while the national average was 1.72 (Centers for Medicare and Medicaid Services, 2024). These numbers are alarming as the facility of hospital admissions has nearly doubled over the year. This increase in hospital admissions shows a need for change in order to decrease the number of residents who are hospitalized while stay in the long-term care facility.

The same facility tracks emergency room visit rates. These numbers were also elevated from previous periods. In 2023, the emergency room visit rate was 0.73 per resident day. In 2024, the emergency room visit rate had increased to 1.30 per resident day. This data showed an increase in emergency room visits for this facility. The state average for emergency room visits is 1.50, while the national average is 1.65 (Centers for Medicare and Medicaid Services, 2024). Change is needed due to the increase in emergency room visits over the last year.

## **Purpose and Aim**

The purpose of this Doctor of Nursing Practice (DNP) project was to have a Physician Orders for Life Sustaining Treatment form on file for all long-term care residents at the facility. The aim of the project was to decrease hospital admission rates and emergency room visits by having Physician Orders for Life Sustaining treatment (POLST) forms available in the medical chart. The aim of this project was to also have advance care planning conversations with both residents and families to facilitate open communication between providers, residents, and families. The project also focused on education of staff on the purpose and use of POLST forms.

## **Operational Definitions**

Advanced Directives- a legal document that guides medical care in case of disease or severe injury when a patient can't speak for themselves (Alaska POLST, n.d).

CPR- an emergency lifesaving procedure performed when the heart stops beating (American Heart Association, 2025).

DNR order- a legal document in which a person or their proxy states that health care providers should not use cardiopulmonary resuscitation if that person is found without a heartbeat or breathing (National Cancer Institute, n.d.).

POLST form- a part of advance care planning for people with advanced, chronic, or end stage illness. With POLST forms choices are turned into physician orders to make sure that you only get the treatments you want (Alaska POLST, n.d.).

Resident days- the number of hospital readmission/emergency room visits divided by the number of the sum of all long-term days in the target period divided by 1,000 (ABT associates, 2019)

Skill nursing facility-provide a wide range of health and personal care services. Services focus more on medical care than most assisted living facilities or care homes. Services often include 24 hour supervision, nursing care, meals, and assistance with activities of daily living (National Institute on Aging, 2023).

## **Background**

Hospital admission rates and emergency room visits are important to the skilled nursing facility, patients, and the community they serve. Hospital admission rates and emergency room visit rates are important as they indicate the quality of care provided by the facility. This is important to the local community as there is only one long-term care facility within a 300-mile radius. This facility is imperative for quality care for the local elders.

In the state of Alaska there have been several different formats for advance care planning. Residents at this long-term care facility have a variety of advanced directives. Advance directives found in long-term care residents charts in the participating facility included Alaska Advance Directives form, MOST forms, Five Wishes forms, and POLST forms. The variety of forms use make determining end-of-life wishes difficult as they all address different areas of end-of-life care. Several of these forms including Alaska Advance Directives form and the Five wishes form are greater than ten pages long, leaving the forms to be cumbersome and over whelming to the elderly. These forms are also time consuming for staff to review and decipher in an emergent situation.

### ***Findings: Organizational Goals***

The organization has made a commitment to make quality measures a priority to improve care over the next year. The organization has focused on decreasing both hospital admission and emergency room visits. To help improve hospital admission rates and emergency room visit rates the organization is supporting work to ensure these goals are met. They are supportive of a project that will provide long-term solutions to these issues.

### ***Findings: Benefit of POLST Programs***

One intervention that has been shown to decrease hospital admission rates and emergency room visits is having a fully developed physician order for life sustaining treatment program (POLST). Tark (2021) demonstrated that states with fully developed POLST programs showed a twelve percent decrease in patients who died inpatient or in the emergency room. This study showed that having a fully developed POLST program decreased the likelihood of patients returning to the emergency

department or hospital for end-of-life care but rather stayed at home to pass per their outlined wishes. Tark (2021) defined fully developed POLST form programs as programs that included POLST forms as a standard of care for individuals living with serious health condition.

***Findings: Advance Care Planning***

Communicating end-of-life wishes is important to decreasing emergency room visits and hospital admission. Having POLST forms on file will help decrease unwanted interventions and possible elevation of care including hospital admissions and emergency room visits. Advance care planning helps residents and their families express their wishes for end-of-life care prior to crisis. Advance care planning needs to take place in an open conversation to truly understand what that residents and families wishes are for care. All options for care need to be discussed and values of the resident and their families should be used to guide advanced care planning.

The POLST form is a form that has medical orders to help guide care. POLST forms took over the Comfort One form, which was previously used in the state of Alaska, in January of 2022 after being signed into regulation in May of 2021 (Alaska POLST, n.d.). In November of 2022 there was a house bill that passed to allow all providers including nurse practitioners and physician assistants the legal authority to sign Alaska POLST forms (Alaska POLST, n.d.). These changes improved advance care planning for elders in the state of Alaska.

The transition was made to the POLST form from the Comfort One form to follow national best practices. The POLST form helps form orders for end-of-life care. The POLST form is able to be applied to a wider range of individuals whereas the Comfort One form was mostly used for hospice patients. The POLST helps ensure that patients receive their desired level of care not just a code status. POLST forms also provide legal protections and protocols for portability state-wide care, emergency medical services, long-term care facilities, and hospitals. The POLST form is a process and a part of advance care planning which helps people live the best life possible. It is a conversation between an individual, family, and the health care team about medical conditions, potential treatment options, and choices for future care. The form itself is a

medical order form that travels with the patient from setting to setting. The POLST forms are vital to improving care and decreasing unwanted or unnecessary emergency room visits and hospital admissions (Alaska POLST, n.d.).

### **Clinical Questions**

Based on data regarding hospital admissions and emergency room visits at the long-term care facility two clinical questions were formed:

1. Did having a POLST form completed and in the electronic medical record decrease the number of hospital admissions?
2. Did having a POLST form completed and in the electronic medical record decrease the number of emergency room visits?

### **Summary**

This doctorate of nursing quality improvement project focused on decreasing hospital admissions and emergency room visits while honoring resident's wishes for medical care and medical interventions. There has been significant progress and work at the state level in Alaska to promote the use of the POLST form statewide to align with national standards of care. This project focused on bringing the POLST forms into the long-term care setting to better communicate end-of-life wishes for the elders served at the facility, while decrease hospital admissions and emergency room visits.

The data that was collected during this quality improvement project included resident' hospital admission rates and emergency room visit rates. The intervention that was put into place is the completion of POLST forms that are be easily accessed in the resident's electronic medical record. There was also education provided to staff regarding the use, location, and purpose of the POLST forms. Support to complete POLST forms was also provided to staff, residents, and residents families during the project. This project was needed to help improve quality measures including hospital admission rates and emergency room visit rates that have been on the rise over the last year.

## **Chapter 2**

### **Literature Review**

#### **Introduction**

Literature was reviewed to help determine the benefits, challenges, and recommendations for POLST forms for patients, including those in long-term care facilities. Literature included retrospective studies, cross-sectional studies, expert opinions, and scoping reviews. The literature review was also used to help identify gaps in the current literature.

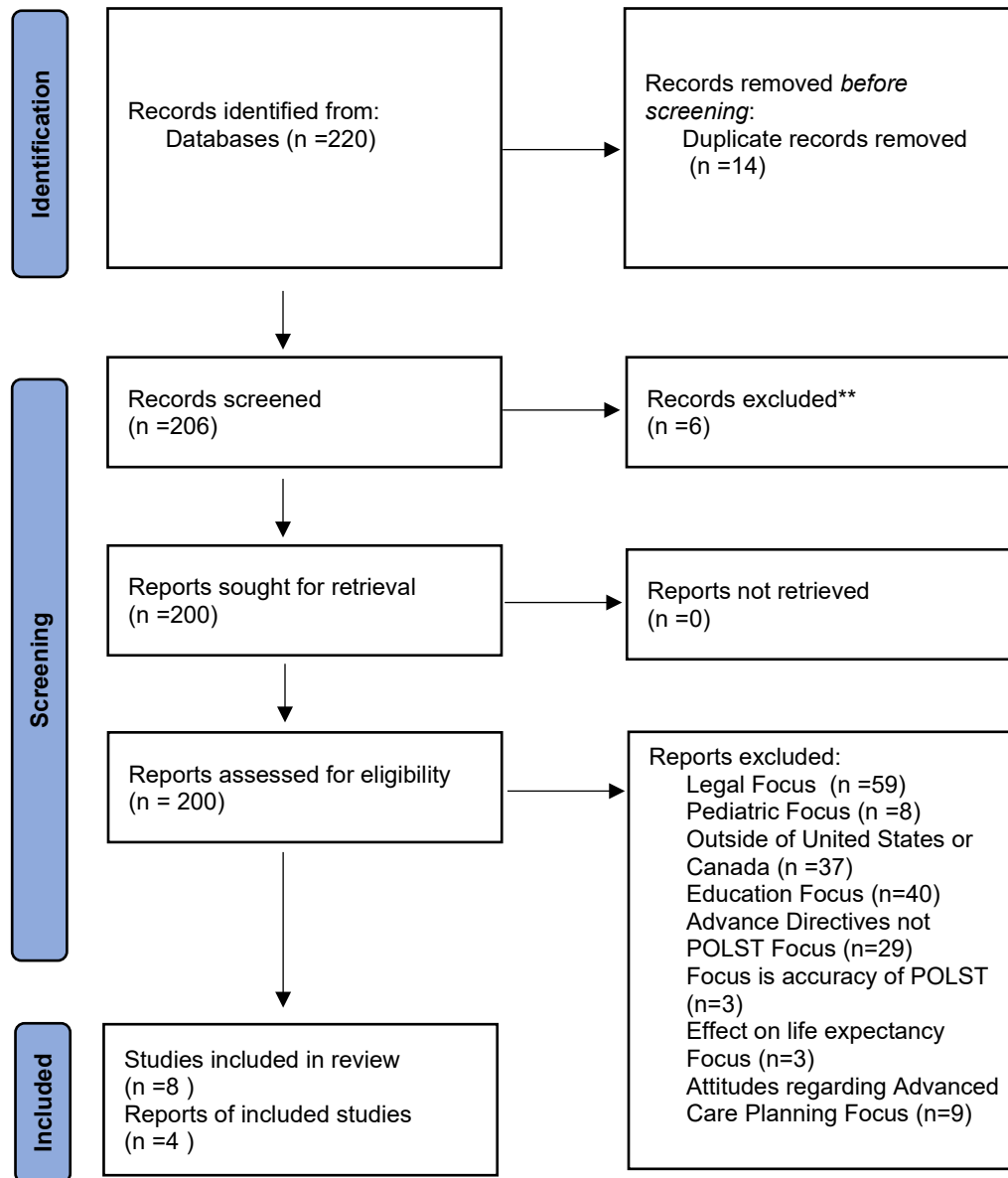
#### **Methodology**

A comprehensive computer-assisted literature search was completed using EBSCO Host and PubMed databases. These databases were used to find primary sources of quantitative, qualitative, and mixed methods data. Key phrases used for the search were physician orders for life-sustaining treatment. Limits set for literature search were full text articles published between 2019 and 2024. Literature must have included access to the full text document and must have been in the English language. After searching both databases, two hundred and twenty articles were generated.

All two hundred and twenty articles were reviewed for relevance to the subject. Fourteen studies were duplicate studies and were removed from the literature search. Two hundred and six articles continued for further screening for eligibility for inclusion. Inclusion criteria included setting was in the United States or Canada, specific information regarding POLST forms, articles that have been published in the last five years, articles that focused on the role of the POLST form in long-term care, and had full text available for review. One hundred and ninety-one of these studies were excluded based on the following criteria: studies that had a legal focus (59), the main focus population was pediatric patients (6), contained gray material (6), took place outside the United States/Canada (37), the focus of study was on education (40), discussed advanced directives not POLST focused (40), discussed accuracy of POLST forms (2), examined how the POLST form affected life expectancy (3), and lastly articles regarding attitudes toward advanced care planning (9). After screening literature, there were twelve articles for review.

**Figure 1**

PRISMA diagram of literature search



**Findings**

***Benefits of POLST forms***

There are many benefits of having a POLST form on file. Those with a POLST form on file are able to express their wishes for how they would like to approach death. The POLST form also indicates what interventions the patient would like to take place. The POLST program was put into place to be able to honor patient wishes for end-of-life treatment. Many elderly patients know what their wishes are for end-of-life, however these are topics not often discussed. Filling out a POLST form can lead to more conversations regarding to end-of-life care including where the patient would want to die, if they would like to be buried or cremated, or possibly what they would like their celebration of life to look like. These insights from residents are valuable to staff and family in order to provide the patients with a dignified death. Having these wishes voiced is the first step in to having end-of-life wishes respected and honoring the dying patient.

### **Decrease in interventions**

One benefit is a decrease in nominal end-of-life interventions. End-of-life interventions include, but are not limited to, surgical interventions, cardiopulmonary resuscitation, intubation, defibrillation, and cardioversion. In accordance with their wishes, those who have comfort measures or limited interventions declared on their POLST form have shown a decreased risk of intensive care admission and decreased end-of-life interventions (Lee, et al. 2020). Those with a POLST form on file are able to express their wishes for how they wish to die and what interventions they would like to take place.

### **Increase in honoring wishes**

Having a POLST form completed increases the chances of having end-of-life wishes followed (Hickman et al., 2021). Another benefit of a completed POLST form is that patients who have this specific documentation have a greater chance of dying in place. Dying in place could mean a patient dying at home or in a facility. Patients have demonstrated that dying in place is an important factor in death (Tark, et al., 2021). The use of POLST forms have been shown to help communicate end-of-life wishes for treatment. Those patients who present to the emergency department are often unable to convey their care preferences nor are they accompanied by the appropriate documentation regarding end-of-life treatment wishes (Russell,

et al., 2021). When POLST forms are used and uploaded to an electronic medical record, they can be easily obtained. The ease of obtaining end-of-life wishes from POLST forms is a great benefit for both patients and emergency room providers.

### **Improve quality measures**

POLST form completion has also shown to improve quality measures in long-term care facilities. Quality measures are factored into star ratings for long-term care facilities. POLST form completion has shown to improve quality measures and therefore improve star ratings for long-term care facilities. Higher quality measures and star ratings indicating better care is given at these facilities (Jennings, et al., 2022).

### ***Challenges of using POLST forms***

There are many challenges to using POLST forms for advanced care planning. First, there are ninety-nine different tools for advanced care planning (Riley, et al., 2024). Having so many tools to complete one task leads to confusion and the use of multiple different tools to communicate wishes. There needs to be a unified approach to expressing end-of-life wishes.

### **Overuse of POLST forms**

There are experts who feel the POLST is overused. The intention of the POLST form is for those who have advanced illness, a serious life limiting medical condition, or advanced frailty to be able to express their wishes for end-of-life care (AK POLST, n.d.). Experts feel that only those who meet the specified criteria should be offered a POLST form. Residents in skilled facilities for short term care or rehabilitation might not meet the criteria for POLST form completion (Lam, et al., 2022). The challenge is using the POLST form for appropriate patients. There have been initiatives in the past to use POLST forms as a code status form in long-term care facilities, this is not their purpose. Using POLST forms as code status forms decreases the value of the form. The POLST forms should only be used if the patient meets the criteria. Using POLST forms as a code status form often decreases the conversation regarding end-of-life wishes and the ability to honor this wishes at end-of-life.

### **Low usage**

POLST form use is low. In one study, only thirty-seven percent of patients who died had a POLST form on file (Naasan, et al., 2022). POLST forms are often not completed when patients are changed from a full code to a do not resuscitate status. This is a good time to discuss end-of-life wishes when a patient has decided on a limited intervention such as do no resuscitate order. Getting POLST forms completed when patients are near the end-of-life is a challenge.

### **Barriers**

There are several noted barriers to getting POLST forms completed. First, families are not always receptive to advanced care planning conversations. Second, there is often a lack of rapport between providers, families, and patients prior to completing a POLST form. Another factor is patient denial of condition. At times, patients do not want to discuss end-of-life planning as they do not want to accept the severity of their disease process. The time needed to complete POLST forms is also a challenge in the health care setting. Providers sometimes delay POLST form completion due to an unclear prognosis (An, et al., 2019).

### ***Recommendations for POLST use***

POLST forms have shown to have benefits. The POLST form is associated with decreased length of hospital stay and decreased intensive care unit admission when limited treatments are indicated on the POSLT form. Limited intervention selection is not associated with hospital admission, aggressive care interventions, or in hospital deaths (Vranas, et al., 2020). This indicates that POLST forms are effective and are recommended for those who are at risk for a sudden decline or are at high risk of mortality to help preserve their wishes.

The recommendation for POLST forms is to be updated with any critical illness episode. It is also recommended that POLST forms are completed using patient values and goals. It is important to document values and goals in the medical record outside POLST forms to help support patient wishes and for future recall regarding end-of-life wishes. POLST forms

should be shared with family members or surrogates to help them advocate for patient centered care at the end-of-life (Lee, et al., 2020).

### ***Strengths, weaknesses, and gaps***

After reviewing the literature, strengths, weaknesses, and gaps can be identified. Strengths of the literature include large studies that identify the benefits, barriers, and challenges in the use of POLST forms. The literature reviewed demonstrates strong evidence that POLST forms do lead to patients' wishes for end-of-life care being followed and decreased undesirable interventions. Other noted strengths of the literature include a variety of settings, a variety of backgrounds of authors, and literature is recent.

There are noted weaknesses in the literature presented. First, most articles are retrospective studies or expert opinions. Second, some articles are focused on hospital-based care, not long-term care facilities. Third, the populations studied vary greatly, including diagnosis and setting.

The gap in the literature identified is how POLST forms improve hospital readmission rates and emergency room visit rates. However, the literature does address the decrease in length of stay and intensity of care. The literature also guides the improvement of quality measures for long-term care. However, it does not define what quality measures. The gap in literature is how POLST forms affect quality measures such as hospital readmission rates and emergency room visits. This quality improvement project will help determine if POLST form completion affects hospital readmission rates and emergency room visit rates.

### **Theoretical framework**

The theoretical framework used in this quality improvement project is Knotter's eight stages of change. Knotter's eight stages of change framework were selected because it gives a good structure for a small scale quality improvement project. Knotter's eight stages of change framework were selected as it provides identification of change agents with guidance for goal points to monitor and creates moments of celebration for progression of change. Knotter's eight stages of change will

work well in noticing and celebrating the small improvements to provide momentum to produce long-term change (Harrison, et al., 2021).

### ***Creating a sense of urgency***

Knotter's first step of change is creating a sense of urgency or importance. In this quality improvement project, data will be used to create a sense of urgency. Information regarding the effects of hospital readmission and emergency room visits on quality measures will also be communicated. This step in the framework is imperative to communicate the importance of the needed change.

### ***Building a coalition***

Knotter's second step to change is building a coalition. This step includes identifying key stakeholders. For this quality improvement project, key stakeholders are those in the leadership roles, including the administrator, the quality assurance nurse, and the quality improvement committee.

### ***Forming a strategic vision***

Forming a strategic vision is the third step in the eight-step process for change using Knotter's theory of change. The vision for this project is to improve quality measures, including decreasing hospital readmission rates and emergency room visit rates by implementing POLST forms for all long-term care residents. This vision will be communicated to staff in the first week of the project to educate staff on the vision for change. Communication will occur at the scheduled meetings for nursing staff to introduce the vision of the project.

### ***Enlisting a volunteer army***

The fourth step of change in this framework is enlisting those to support the proposed change. This project will require unit managers to assist with educating and supporting staff on using the POLST forms. The quality improvement team will also provide support with data collecting. The administration will also provide support, including providing time for education for staff.

### ***Enabling action by removing barriers***

The next step for change is removing barriers. Barriers that will be removed for the success of this project are lack of knowledge regarding POLST forms, limited support for questions regarding POLST forms, and time for education. Knowledge will be increased regarding the POLST form at regularly scheduled staff huddles. This will also remove the barrier of time for education as this time is already scheduled for nursing staff. Education will be brief. Phone support will be provided by the primary investigator to answer any questions that may arise during the POLST implantation project.

### ***Generating short-term goals***

Generating short-term goals is important to track progression and provide evidence of success. It is important to support the forward movement for change. Short-term goals will be discussed at weekly meetings. Short-term goals will include no hospital readmissions or emergency room visits for the week. Having short-term goals will help track progress and create small wins.

### ***Sustaining acceleration***

Sustaining the forward movement of a change is important for continued improvement. Acceleration will be sustained by weekly staff meeting, including the celebration of meeting short-term goals. Keeping the staff involved in the project will help accelerate sustainability.

### ***Anchor change***

The last step of Kotter's eight steps of change framework is to anchor change. It is important to ensure that the change will continue even after completion of the project. For this project, the change will be anchored by incorporating completion of the POLST form in the resident/family meeting for new residents. This meeting usually takes place one to two weeks after admission to long-term care. By including POLST form completion during this regularly scheduled meeting, it will ensure that all long-term care residents will have a POLST form on file during the stay.

## **Summary**

Two databases were accessed to perform a literature review using the keywords “physician orders for life-sustaining treatment.” A total of twelve studies and reports were reviewed and included in the literature review. Three common themes regarding POLST forms were identified including benefits of POLST forms, challenges with POLST forms, and recommendations for POLST form use. To implement change for this quality improvement project, to decrease hospital admissions and emergency room visits, Kotter’s framework for change was used. Using this framework will help guide the implementation of the quality improvement project.

## **Chapter 3**

### **Methods**

#### **Introduction**

This quality improvement project was aimed to decrease hospital admission rates and emergency room visit rates by having POLST forms available in the medical chart. The project included residents who were in a long-term care facility in Alaska for long-term care, who were under the care of the medical director, and who did not have a discharge plan. Those residents who were not under the care of the medical director or were in the facility for short term rehab were not included in the study. Data was evaluated using weekly compliance checklists completed during weekly staff meetings with leadership and investigator and comparison data of hospital admissions and emergency room visits pre and post-intervention. The intended outcome was that more residents would stay at the facility for end-of-life treatment where their wishes for end-of-life care can be carried out.

#### **Project Design**

The proposed quality improvement project used a mixed methods approach and was focused on decreasing hospital readmission rates and decreasing the number of emergency room visits for long-term care residents in a nursing facility in Alaska. This quality improvement project used the Knotter model for change. The intervention for the quality improvement project was the investigator meeting with residents and their families in individual meetings to discuss POLST forms and obtain resident wishes for end-of-life treatment within an eight-week period. POLST forms were completed with resident wishes on a hard paper copy and transferred to the residents' medical chart under the advance directives tab by the ward clerk. During the first week of the project, nursing staff was educated by the provider using standard education provided by POLST AK during two thirty-minute sessions. Education included purpose and use of the POLST form. Additional education was provided to staff regarding the location of the POLST forms in the facility electronic medical record and the projects goals for

using the POLST forms throughout the project. Further education was provided on an as needed individual basis as problems or questions arose during the implementation period.

The investigator provided data to neighborhood managers regarding the need for change. This data included the increase in hospital admissions and emergency room visits in the previous year. Education was also provided on national and state averages of hospital admissions and emergency room visits. The vision of the quality improvement project was also communicated to staff and management through the general staff meeting. In weeks two through eight, the provider meet with staff once a week to discuss and review the compliance checklist (Appendix A) to help address obstacles and help empower staff to make a positive change. Data was collected during these meetings to evaluate short-term wins. During weeks nine and ten, data for hospital readmissions and emergency room visits was collected and analyzed.

## **Sample and Setting**

### ***Setting***

This quality improvement project will take place in a long-term care facility in Alaska. This long-term care facility provides care for those residents who need sub-acute rehabilitation or need long-term care due to advanced medical conditions, impaired cognition, or physical limitations. The facility is made of four neighborhoods. One neighborhood focuses on sub-acute rehabilitation, two neighborhoods focus on those residents that need long-term care, and the fourth neighborhood has a focus on dementia care. The facility has capacity for ninety five residents. Census at facility ranges from 68-75 residents. Short term rehabilitation census averages eight residents, the two long-term care wings normally have twenty four residents each, and the dementia unit has seventeen residents on average. Staff in this facility is made up of four neighborhood managers, registered nurses, licensed practical nurses, certified nursing assistants, registered social workers, two nurse practitioners, and a medical director along with several other support staff. Key stakeholders that will be included to ensure the effectiveness and sustainability of the intervention in the practice are the neighborhood managers, the floor nursing staff, providers, and nursing management.

### ***Sample***

Participants of the quality improvement project were recruited by reviewing medical charts for those who do not have a physician order for life-sustaining treatment (POLST) form in their advance directives tab. These participants were under the medical directors' care who has access to the charts for review. Consent to participate in the quality improvement project took place in conjunction with the discussion regarding POLST form completion. Participation was voluntary. There were twenty-one residents in the long-term care facility who do not have a POLST in their medical records.

Participants included in this quality improvement project include those residents who were here for long-term care, who had no discharge plan, were cognitively able to complete a POLST form or have a power of attorney who could complete a POLST form, were willing to complete a POLST form, and were under the care of the medical director. Exclusion criteria include those who were here for short term rehabilitation services, who had a discharge plan, were not cognitively able and do not have a power of attorney, those who choose not to complete a POLST form, or were not under the medical director's care.

### ***Protection of human subjects***

Potential volunteers for the project were informed of their voluntary involvement in the project. They were informed of the process and the requirements for participation. They were also informed their healthcare information would be protected and not shared. Verbal consent was collected from all the participants before POLST forms were completed. Prior to starting, the project was submitted for expedited review and approved by the Institutional Review Board (IRB) of Hawaii Pacific University (Appendix B). There were safety measures in place to protect the rights, confidentiality, and welfare of participants throughout the quality improvement project. Data was obtained using secure data management protocols. With the guidance of the Institutional Review Board and Foundation Health Partners (FHP) all ethical considerations were be addressed. A memorandum of understanding between Hawaii Pacific University and FHP outlined the collaboration of the two organizations, including the responsibilities and expectations for ethical processes for quality improvement.

## **Data Collection Instruments**

### ***Demographic Survey***

The demographics of this project were assessed using an electronic medical record review process. Data collected included age, gender, and code status. This data was placed in an Excel spreadsheet that was password protected. Participants were assigned an identification number to conceal their identity.

### ***Quality Review Process***

Data regarding hospital admission and emergency rooms visits were collected through the quality assurance team who collects data through the electronic medical record. This data is collected and placed in a shared file. Data is password protected. Data collection for monitoring POLST form completion was monitored through an excel spreadsheet, that used assigned identification numbers instead of personal health information to patient privacy.

### ***POLST Assessment Tool***

A POLST assessment tool was created to monitor hospital admissions and emergency room visits. The POLST assessment tool was used during weekly staff meeting to assess progress of the quality improvement project, barriers, and questions from staff and families regarding POLST forms. This tool help collected qualitative data during the implementation process.

## **Procedures**

The quality improvement project was focused on decreasing hospital admission rates and decreasing the number of emergency room visits. This quality improvement project used the Kotter model for change. The intervention for the quality improvement project was the investigator meeting with participants and their families in individual meetings to discuss POLST forms and obtain resident wishes for end-of-life treatment within an eight week period. POLST forms were completed with resident wishes on a hard paper copy and transferred to the residents' medical chart under the advance directives tab by the ward clerk. During the first week of the project, nursing staff was educated by the provider using

standard education provided by POLST AK during two thirty-minute sessions. Education included purpose and use of the POLST form. The investigator provided data to neighborhood managers regarding the need for change. The vision of the quality improvement project was also communicated to staff and management through meetings. In weeks two through eight, the provider meet with staff once a week to discuss and review the compliance checklist to help address obstacles and help empower staff to make a positive change. Data was collected during these meetings to evaluate short-term wins. During weeks nine and ten, data for hospital readmissions and emergency room visits was collected and analyzed.

During implementation of this project, families were provided education on POLST forms also. This education included the importance of having documented wishes to ensure that these wishes would be followed if there was an acute decline. The importance of having written orders regarding end-of-life wishes were explained. Education was provided to both residents and families that having documented wishes in a standard form will help ensure there are not unwanted interventions at the end-of-life.

### ***Evaluation***

To determine the effectiveness of POLST form completion intervention, data was used to compare hospital readmission rates and number of emergency room visits pre POLST intervention and post POLST intervention of the participants. The primary outcome measure was the number of hospital readmission and emergency room visits both prior to intervention and post intervention. Secondary outcomes assessed were better understanding of POLST forms by staff. Data was collected by the quality management team using Cerner reports along with Excel to manage the data extracted. POLST assessment checklist was used to evaluate staff knowledge throughout the quality improvement project. This helped evaluate the strengths of the project. Data collected was used to institute changes in the facility. Data was analyzed using a paired t-test.

### ***Possible Barriers to Implementation***

Possible barriers of this quality improvement project included poor staff buy in and availability of participants and their families to meet to complete POLST forms in the given timeframe. To help mitigate poor staff buy in, supportive communication from management as well as supporting evidence was provided to staff. To migrate the barrier of availability of participants and their families to meet during a given timeframe, appointments were available at a variety of hours across an eight week period.

### ***Sustainment***

To help sustain the change new long-term care admissions will complete a POLST form during their first care plan meeting with the interdisciplinary team. Furthermore, there will be continued staff education. Staff education will include continued education regarding the use and function of the POLST form during annual staff education. To help continue sustainment, POLST form education will be included in new orientation of nursing staff.

**Table 3.1**

#### *Project Procedural Flow*

Activity	Allotted Time
Staff education regarding POLST Forms-PowerPoint	8 hours
Meeting with patients and families to complete forms	15 hours
Ongoing assessment of hospital admissions and emergency room visits-weekly compliance check list	4 hours
On call questions/concerns	4 hours

## **Data Analysis**

Quantitative data was analyzed using a paired T-test. Quantitative data included pre-intervention and post-intervention hospital admission rates and emergency room visit rates. This data was collected through the quality management team using the facility software. Qualitative data was also collected using the POLST assessment checklist.

## **Resources and Budget Considerations**

There were several different resources needed in order to be successful in this quality improvement project. First, the staff's time was imperative to the project's success. Staff must have had time designated for initial training and time to attend one meeting per week for the eight week research period. AK POLST program PowerPoint, was needed to assist with the initial education. AK POLST has a developed program toolkit, including a PowerPoint presentation, to provide education to health care workers. The program also needed to develop a compliance checklist to aid in monitoring of progress and weekly updates. Time from families and participants were needed to help complete meetings and POLST forms. Space for both staff meetings and participant meetings were held in the conference room at the facility for ease of access and space. The POLST forms themselves were obtained from the official AK POLST website for completion, this is public domain document and permission is not required from author (Appendix C). Access to the electronic medical record (EMR) to upload POLST forms was also a vital component of the project. Excel and facility software were also be utilized for data collection. There was additional provider support on call for questions regarding POLST outside of meeting times. These resources were important in the successful implementation of the POLST project. No costs were involved in this quality improvement project. There was no additional budget needed to complete the project.

## Project Timeline

Component	Project Completion Date
Project Proposal Presentation	10/18/2024
Institutional Review Board Approval	11/23/2024
Recruitment	1/6/2025-2/28/2025
Delivery of Educational Sessions	1/6/2025 & 1/9/2025
Data Analysis	3/7/2025
Write-up of results and discussions	4/27/2025
Final Project Presentational	4/23/2025

## Summary

This project took place in a long-term care facility focusing on residents in long-term care. There were forty two eligible participants using the inclusion criteria set forth for the project. This project focused on data including hospital admission rate and emergency room visit rates. This project also provided education to staff to help implement and provide sustainability of the project.

This project had an eight-week implementation period. Implementation consisted of staff education and provider meetings with individual families and residents. Implementation also included weekly check meetings with staff to review the POLST assessment checklist. Quantitative data was analyzed using paired T test, comparing pre-intervention and post-intervention data. Qualitative data was also collected from the POLST assessment checklist that were completed at weekly staff meetings.

This quality improvement project also looked at ways for sustainability after completion of the project. The plan is to continue with POLST form completion with all new long-term care residents that enter the facility following completion of the project. Education will be continued through new employee orientation and during annual education for appropriate staff members to help ensure sustainability.

## **Chapter 4**

### **Results**

#### **Introduction**

The project was conducted over an eight week period. The project began on January sixth two thousand and twenty-five and took place over the next eight weeks concluding on March third of two thousand and twenty five. Over this eight week period education was provided to staff, families, and residents. Meetings took place to discuss advance care planning including filling out POLST forms for long-term care residents. Data was collected regarding hospital admission and emergency room visits over a fifty-six day period. This quality improvement project took place in a long-term care facility in order to improve hospital admission rates, emergency room visit rates, and to honor resident's wishes at end-of-life.

#### **Demographics**

A convenience sample of forty-two residents was used for this study. There were eleven males and thirty-one females included in the participant group. All of the participants lived in a long-term care facility and were there for long-term care. The average age of participants was seventy years old. Of the forty-two participants fourteen had POLST forms on file at the start of the project. Throughout the project an additional twenty-one residents completed a POLST form. The POLST form was then placed in a designated place in the residents chart. There were three participants that had court appointed guardians who did not wish to complete the POLST form on their behalf. There was one resident family that could not be contacted over the eight week period. There were also three residents or resident families who declined to complete the POLST form. These resident's and their families were provided education for future follow up.

#### **Findings: Decrease Emergency Room Visits**

One finding from this project was the decrease in emergency room visits for long-term care residents. Overall, the number of emergency room visits did decrease following the interventions offered during the project, including POLST form completion and POLST education with staff. The pre-intervention emergency room visit rate fifty six days prior to

implementation was 1.48. The post-intervention emergency room visit rate from day one of the project to day fifty-six was 0.89. The p-value is less than 0.05, indicating statistical significance. Resident days are calculated by counting how many residents were in the long-term care facility each day of the month.

**Table 4.1**

*Means (SD) of emergency room visits*

<i>Test Item</i>	<i>Mean (SD) Pre-Intervention</i>	<i>Mean (SD) Post-Intervention</i>	<i>Mean Change (SD)</i>	<i>Significance of Change Post- Intervention</i>
<i>Emergency Room Visits</i>	<i>1.48 (0.83)</i>	<i>0.89 (.89)</i>	<i>.59</i>	<i>0.03*</i>

\*Significance level <0.05

**Findings: No Improvement in Hospital Admission Rates**

Upon completion of this project, it was determined that having a POLST completed for long-term care residents and having it on the electronic medical record did not improve hospital admission rates. However, there was only one hospital admission during the project period and that residence had declined to complete a POLST form. If a POLST was completed it could have affected the outcome of the hospital admission, and possibility the resident being sent to the emergency room for evaluation. The pre-intervention hospital admission rate was 0 over the previous fifty six days, while the hospital admission rate post-intervention was 0.23. The p value is 0.25 indicating no statistical significance of the finding.

**Table 4.2***Means (SD) of hospital admissions \*Significance level <0.05*

<i>Test Item</i>	<i>Mean (SD) Pre-intervention</i>	<i>Mean (SD) Post-Intervention</i>	<i>Mean Change (SD)</i>	<i>Significance of Change Post- Intervention</i>
<i>Hospital Admissions</i>	<i>0 (0)</i>	<i>0.23 (0.23)</i>	<i>-0.23</i>	<i>0.25*</i>

**Findings: Increased Completion of POLST Forms**

One goal of this project is to increase the number of conversations regarding advance care planning including POLST form completion. At the beginning of this project, fourteen long-term care residents had a POLST on file indicating that advance care planning had been discussed with the resident or their families. This was thirty-three percent of the targeted population. At the end of the project, thirty-five (83%) residents had POLST forms on file, noting a fifty percent increase in the number of POLST forms on file. The tool used to assess the number of POLST forms on file was an excel spreadsheet to keep track of who had a POLST form on file prior to the intervention and who had a POLST on file after the intervention. The number of POLST forms completed show increased in advance care planning for the targeted population. .

**Findings: Increased Staff Education Regarding POLST Forms**

One goal of this project was to increase awareness of POLST forms and the use of POLST forms when considering sending residents to the emergency room. Prior to the intervention, POLST forms were not being reviewed by nursing staff before considering whether to send a resident to the emergency room. Education was provided during the first week of the project to address purpose of the POSLT form, where the POLST form is located, and when it should be reviewed. The sections of the POLST form were also reviewed to provide education on how to interpret the selections made by the residents for end-of-life care.

This goal was evaluated by using the POLST assessment tool (Appendix A) each week at staff meetings to review the prior week's emergency room visits and hospital readmissions. After reviewing the POLST assessment tools from each week, it was determined that staff reviewed the POLST before sending the resident to the emergency room fifty percent of the time. There were four occurrences of emergency room visits during the post-intervention period. The first emergency room visit occurrence it was reviewed using the POSLT assessment tool, and it was determined that the POLST was on file; however it was not reviewed prior to sending the resident to the emergency room. The second occurrence of an emergency room visit was reviewed, and it was determined that there was not a POLST on file for this resident. During the review of the third and fourth occurrences it was determined that the POLST form was on file and was reviewed before to sending the resident to the emergency room. Despite a review of the POLST form, it was determined that resident still needed to be sent the emergency room for treatment based on limitations of the facility or due to treatment wishes for end-of-life. Residents who chose full interventions for end-of-life after get sent the emergency room because bi-pap, intubation, and other aggressive measures cannot be completed in the long-term care setting.

Even though the residents still required an emergency room visit after reviewing the POLST, it was evident from reviewing these occurrences using the POLST assessment at weekly staff meetings that staff felt more knowledgeable and confident at reviewing POLST forms prior to sending residents to the emergency room. Educating the staff throughout this project on the implementation of POLST forms will help guide staff in the decision making process while respecting end-of-life wishes. POLST education was reported to be valuable to staff members and gave them a better understanding of the POLST form, including its purpose, location, and goals.

### **Findings: Themes that Emerged During Implementation**

Following the educational sessions, weekly staff meetings, and the attempt to complete POLST forms for all residents, three themes emerged. These themes were identified using the POLST assessment tool at weekly staff meetings and by investigator's experience while attempting to get POLST forms completed. The first theme identified was increased staff

awareness of POLST forms. The second theme identified was the resistance of families and residents to discuss advance care planning and POLST forms. Lastly, it was determined that those who have POLST forms on file at times still needed hospital care despite having comfort care as their end-of-life-wishes.

### ***Theme 1: Staff Awareness and Involvement***

One theme that emerged during this project was increased in staff awareness and involvement with POLST forms. Prior to the intervention floor staff did not have a good understanding of the purpose of the POLST forms or how to use them in this setting. The baseline knowledge of staff was informally assessed during educational training. With increased education and discussion of POLST forms, staff started asking questions regarding POLST forms, demonstrating increase awareness of POLST forms that were on file. These questions were answered by a telephone call and during weekly staff meetings. The POLST assessment tool captures questions from staff that were presented during staff meetings and that were presented during the week to the on-call provider regarding POLST forms. Five out of the eight weekly staff meetings addressed questions regarding POLST forms from family and staff. Family questions regarding POLST forms were captured during care conference meetings and through staff members who were often asked the questions and questions were then addressed during weekly staff huddles for follow up.

### ***Theme 2: Resistance to Completing Standard Form***

One theme that was discovered during implementation was resistance from residents and families to document wishes on a standard form. In most cases, this resistance was addressed during individual meetings with residents and families. There were three residents and/or families who declined completion of the POLST form. Stated reasons included: needing more time to decide, wanting to make decisions based on the resident's condition at the time of decline, and not feeling like advance care planning is necessary when healthy. These concerns were addressed, including follow-up visits for those who felt like they needed more time, addressing the importance of knowing wishes before a crisis, and by addressing the purpose

of the POLST. Despite addressing concerns, during follow-up visits, the same reasons for not completing POLST forms were stated.

During implementation it was also discovered that court appointed guardians did not wish to complete the forms for their clients. Court appointed guardians do have the right and the responsibility to express end-of-life wishes of their clients. However, the group of court appointed guardians have decided that they do not wish to complete POLST forms but would rather make choices for end-of-life when their clients decline one choice at a time instead of putting end-of-life wishes into on document such as a POLST form.

### ***Theme 3: Emergency Room Visits are Necessary Due to Limitations of Setting***

During this project, the theme of limitations in the long-term care setting was identified. Each emergency room visit was reviewed with the team, including input on what could be done to prevent reoccurrences. The team included unit managers, the director of nursing, and a provider. Common reasons of emergency room visits were not having access to imagining and not having access to specialties.

Fifty percent of those who were sent to the emergency room were sent due to the need for imagining that could not be obtained in the long-term care facility. Rapid imagining in this setting is limited to x-rays. There is no way to obtain a CT scan, MRI, or an ultrasound in a timely manner as an outpatient facility. Therefore, when emergent needs arise, the resident must go to the emergency room for imagining.

The limitation of rapid imagining was addressed with the medical director and the director of radiology as a result of this project. There has since been a process put into place in order for residents to have rapid access to needed imagining despite being an outpatient facility. The process includes provider-to-provider communication between the facility provider and radiology provider, the new expectation is that imagining will be able to be completed in a two hour time frame if clinically indicated without the need for an emergency room visit.

The second limitation that was identified was the lack of access to a specialist. During the implementation of this project one resident had a large amount of hematuria from a suprapubic catheter with a complicated urology history. It was determined that he needed a urology consult emergently. There are no on-call specialist for the facility; if a specialist is needed, they must go to the emergency room for consultation. This issue has not been resolved at this time; however, has been identified as a potential limitation to providing care in the facility setting, causing an increase in emergency room visits.

### **Summary**

Implementation of this project has decreased the emergency visit rate overall. However, it did not show improvement in hospital admission rates. The number of residents with POLST forms on file has increased in this facility. The facility overall had eighty-three percent POLST form completion at the conclusion of this project, significantly increasing the number of residents having a completed POLST.

Implementation of this project allowed for staff to become more confident in the area of advance care planning with a focus on POLST forms. This project showed that with education staff are able to make more educated decisions when considering sending residents to the emergency room. Weekly huddles highlighted staff involvement and evolving knowledge by staff showing engagement and presenting questions related to the POLST forms.

This project also highlighted known resistance from families and residents regarding advance care planning. Families and residents have multiple reasons for resisting POLST form completion. One reason was they needed more time to decide on end-of-life wishes. Another stated reason was they wanted to wait until a decline in the residents' health was observed to make these decisions for end-of-life care. Another stated reason for resisting completion of the POLST form was they did not feel like they needed to plan for end-of-life as they were currently healthy with no acute illness even though they did have chronic illnesses that were likely to lead to complications. Resistance was also met for those who have court appointed guardians. The court appointed guardians for our clients have chosen not to complete POLST form for their clients which did affect three residents at this long-term-care facility.

Lastly, limitations of the facility were identified as a common theme for emergency room visits. Limitations included available consultations with specialist and access to radiology. These are two important factors in preventing emergency room visits and hospital admissions. Access to radiology was addressed during the project to help eliminate this barrier for the future.

Overall, this project has given valuable insight into staff involvement, resident thoughts regarding advance care planning, and family views on advance care planning. This project also highlighted common themes for hospital admission and emergency room visits. Areas for further discussion and improvement were identified.

## **Chapter 5**

### **Discussion**

#### **Introduction**

The purpose of this chapter is to explain the findings of this DNP quality improvement project from the data that was presented in chapter four. The intended outcomes of this quality improvement project include to decrease hospital admissions and emergency room visits in those who resided at the facility for long-term care and improve related quality measures. Quality measures included number of hospital admissions per resident day and number of emergency room visits per resident day. The first measure, decreasing hospital admissions, was not met. This measure was not met as there was an elevation in the number of hospital admissions. When examining why this outcome did not improve as expected, it was observed that some reasons for hospital admission such as an unstable resident due to acute blood loss could not be treated in a long-term care facility setting. This was an acute injury and not related to known chronic disease. At the time it was unknown if the cause was irreversible or not. This was the one scenario where hospital admission occurred during the implementation stage. The second outcome, decrease emergency room visit rate, was improved. The number of emergency room visits during implementation did decrease. There were also noted additional findings during the implementation process such as an increase in the number of POLST forms on file for the residents in the long-term care facility, and increased knowledge of the staff regarding the purpose and use of POLST forms.

#### **Implication of Findings**

The qualitative and quantitative findings from this project support use of the POLST forms in long-term care facilities. Qualitative data include improved nursing education. Findings that support using POLST forms in long-term facilities included decrease in the number of emergency room visits, increased number of POLST forms in resident's electronic medical record, and increase staff knowledge regarding the POLST. The focus of this quality improvement project was to

decrease hospital admission and emergency room visits. Emergency room visits were decreased with this project implementation.

***Finding 1: Decrease Emergency Room Visits***

The findings of this quality improvement project supports the use of POLST forms in long-term care. The first finding of this project was a decrease in emergency room visits. This was one of the main focuses for the project. It was determined that the number of emergency room visits post-implementation did decrease. Some possible factors that improved this outcome was knowing resident wishes, staff education, having the POLST forms in the electronic medical record, and reviewing the POLST form prior to deciding whether to send the resident to the emergency room.

The literature supports having POLST forms available and in a consistent location would decrease the number of interventions as it did in this quality improvement project. Russell et al. (2021) states that code status and wishes for end-of-life were most easily accessible in their study under a correct label in the electronic medical record. Adding the completed POLST forms to the correct tab in the electronic medical record did lead to increased discussion of POLST from prior to emergency room visits which did help decrease the number of emergency room visits.

This finding was supported during Knottter's sixth step for change. Emergency room visits from the previous week were reviewed each Monday during the implementation period during scheduled staff meeting. This processes allowed the team to not only assess progress to the final goal of decrease emergency room visits, it also allowed time for reflection of every occurrence. These weekly meetings were vital to assessing short term goals and celebrating achievements.

***Finding 2: Increased POLST Forms on File***

The number of POLST forms on file did increased as a result of the implementation of this quality improvement project. The increase in the number of POLST forms on file was not an intended outcome from the project. However, this outcome is important as it indicates increased discussion regarding advance care planning and end-of-life considerations. This finding showed improvement of advanced care planning and communication of end-of-life wishes.

Tark et al. (2021) did state that having a fully developed POLST program would improve quality measures such as hospital admission rates and emergency visit rates. This project helped form a program for POLST implementation within the facility and resulted in better quality measures including decreased number of emergency room visits. Jennings et al. (2022) stated that having a high POLST completion rate was associated with higher Center for Medicare and Medicaid Services (CMS) star ratings. This project reinforced that having a higher number of POLST form completion did improve one quality measure that is factored into the CMS star rating.

This finding was obtained by Knotter's step two, three, four, and five of change. First a coalition was formed to support the project and the goals of the project. Second, a strategic vision was created with key stakeholders. Next, a volunteer army was created to support the project and its implementation. Lastly, barriers were assessed and removed as able to improve communication with families and residents. Through these critical steps, change was able to occur.

### ***Finding 3: Increased Staff Knowledge***

One unexpected finding of this quality improvement project was the effect on staff knowledge. The knowledge deficit regarding POLST forms was not assessed and was unknown prior to implementation. Implementation of this project did include staff education. During the implementation process it did become evident that there was a lack of knowledge and exposure to POLST forms for most of the staff. The education provided had a positive effect on the staff making them more aware of the purpose and location of POLST forms. With this increased knowledge, the POLST form became more valuable tool for determining next steps when sending patient to the emergency room. The staff education provided during this project did help decrease the number of emergency room visits.

Riley et al. (2024) did discuss confusion regarding different forms of advance directives. With ninety-nine different advance directive tools that are available for use, it is not surprising that there was a lack of knowledge regarding the POLST form. Riley et al. (2024) did identify the varying forms of advance directives as a barrier to the use of POLST forms. The POLST form is the state recommend form for communicating end-of-life wishes and are a form of an advance directive.

A sense of urgency was created with staff and key stakeholders. Urgency was created by sharing knowledge. Knowledge was shared implementing Kotter's step one for change, create urgency. The data shared to promote urgency included goals, current admission rates, emergency visits rates, along with education of the POLST forms. Knowledge not only helped create a sense of urgency, but also empowered staff to be able to make positive changes. Knowledge regarding POLST forms and their purpose was also communicated to family and residents for them to understand the importance of having a POLST form on file.

**Figure 5.1**

<i>Kotter's Steps for Change</i>	<i>Findings</i>
1. Create Sense of Urgency	Increased knowledge of staff
2. Build a Coalition	Increase POLST forms on file
3. Form a Strategic Vision	Increase POLST forms on file
4. Enlist a Volunteer Army	Increase POLST forms on file
5. Enable action/remove barriers	Increase POLST forms of file
6. Generate Short Term Goals	Decreased emergency room visits

### **Limitations**

There were limitations of this project. One main limitation of this quality improvement project was the short implementation time frame. The short time frame limited the data that could be collected and analyzed. A longer implementation and data collection period would be needed to determine the true effects of POLST form completion on hospital admissions and emergency room visits. The sample size of the population is also a limitation. A larger sample size would have greater generalizability.

## **Recommendations for Implementation**

Implementation of this project was guided by the Knotter's eight steps to change theoretical framework. Using this framework change was implemented. Knotter's eight steps to change helped form the process of change through the implementation of the quality improvement project. It is recommend that this same framework be implemented for future implementation.

### ***Recommendation 1: Data Sharing***

First, sustaining acceleration must be achieved, which is step seven of Knotter's eight steps to change. In order to continue with forward movement, data from the project should be shared. Following the completion of implementation the findings were shared at weekly staff meeting. This was important because key stakeholders could see the improvements that were made during implantation. This helped encourage staff to continue to use the implemented process of reviewing POLST forms prior to sending resident to the emergency room to ensure that emergency room care aligned with the resident's wishes for end-of-life care. Next, findings will be shared at the general staff meeting to demonstrate the improvements made during the implementation of this project. Lastly, the findings will be shared during a quality meeting to review data related to quality measures and progress made related to emergency room visits and hospital admission rates.

### ***Recommendation 2: Anchor Change***

The eighth step of Knotter's eight steps of change is anchoring change. In order to anchor change, a uniform process for continuing the change will be needed. The plan for this project in this setting is to incorporate continued POLST form completion for all new long-term care residents at the facility. This will be completed by having families fill out POLST forms during their first care conference that is often scheduled within the first month of admission to the facility. This process is uniformed and would help ensure the introduction of the POLST form close to the admission time frame. This process would be a standardized process that would help ensure every resident has the opportunity to express end-of-life wishes

through a standardized form. Having a consistent process for POLST form completion will help ensure that the change can be continued in the future.

Another step to anchoring change is continued staff education. Continued staff education regarding POLST forms will be incorporated into the annual training for staff at the facility. New staff will also be trained during their new staff orientation. This education is vital to ensure that POLST forms are understood and used appropriately. Scheduled education will ensure that staff have the tools to use POLST forms to their fullest extent.

With continued implementation of this project the limitation of the time frame for implementation would be eliminated. Eliminating the short time frame of implantation would allow for better generalizability. Implementing this change long term would also allow for more residents to be included and increase the sample size. Increasing the sample size would also lead to better generalizability.

### ***Cost Benefits/Barriers/Facilitators***

#### **Cost Benefits**

Cost benefits of this project include no cost for continue implantation. The implemented changes can continue without a cost to the resident, facility, or staff. There are cost benefits for patients and for the healthcare system if the number of emergency room visits and hospital stays can continued to be decreased. These cost benefit would include decreasing the cost of health care overall. Hospital admission and emergency room visits are costly to the healthcare system and the resident. Reducing these events could reduce the cost of care for the facility, the associated hospital, and the resident. Overall, this project would help reduce cost without costing participants.

There are other cost savings of having POLST form in place. Having a POLST form in place will decrease further tests and procedures that the resident does not wish to be completed. This will also be cost saving for both the healthcare system and residents. Having a POLST form on file will also help preserve dignity at end-of-life.

## **Barriers**

Barriers to sustaining this project are similar to the barriers faced in implementation of the project. Barriers continue to be staff buy-in, dedicated time for education, and family and resident buy-in. The implementation of this project did have good staff buy-in, however staff buy-in needs to continue to be supported as it is a possible barrier in the future. There will need to be continued support to keep staff engaged in the process. Dedicated time for education will also need to be considered. Staff had dedicated time during the implantation process to engage in weekly meetings and initial education. This was critical to the development and success of this project. Lastly, family and resident buy-in is likely to be a continued barrier. Some families and residents were reluctant to complete POST forms during implementation and this is an expected barrier in the future. This barrier could be lack of understanding, ongoing education and readdressing POLST form in the future is recommend.

## **Facilitators**

This project had some key stakeholders for facilitating change. Nursing leadership, administration, social workers, and providers all worked together to get POSLT forms completed and in the electronic medical record. Nursing leadership played a huge role in reviewing POLST forms prior to sending resident to the emergency room. These facilitators will remain in place to help continue with the implanted changes.

## **Recommendations for Future Practice, Educations, Policy, and or/Research**

Progress regarding POLST forms and honoring end-of-life wishes will continue to require work from all areas in healthcare. This work is important to ensure end-of-life wishes are honored for all residents. This work not only affects residents but also quality measures for long-term care facilities and the cost of healthcare.

## ***Practice***

The recommendation for future practice is to include POLST forms be offered to all residents in long-term care. Residents in long-term care often have chronic complex medical conditions that require a stay in a long-term care facilities,

and therefore are at high risk of complications. Having documented resident wishes for end-of-life care is important in this population because they will often have a decline where their wishes will need to be assessed to determine next steps of care. Future practice should include that all long-term care residents have a POLST form on file in their electronic medical chart that is accessible if a decline occurs and medical decisions needed to be made. The improvement of emergency room visits during the implementation of this project supports that POLST forms are beneficial for those residents in long-term care facilities and should be a part of routine care in long-term care facilities. There were no adverse effects to patient not being sent to the emergency room, patient wishes were followed for in facility care when appropriate.

### ***Education***

One recommendation for future education is ensuring education of POLST forms in undergraduate nursing programs. The topic of end-of-life and POLST forms needs to be included in education to understand the importance of end-of-life care and respecting wishes of the resident. This topic is often not reviewed in the current nursing education programs. POLST form education should be included in nursing education as it is one form that is used nationally, and some form of the POLST form is used in every state.

Second, it is recommended that education of POLST forms be included in annual long-term care education. This would be an excellent resource to communicate any changes in the POLST form. This education would also provide a scheduled education sessions to ensure that all nurses understand the use and purpose of POLST forms. Nursing staff having a good understanding of POLST forms is important because they are often the staff that reviews POLST forms during the care of residents in long-term care facilities. Education of staff played a large role in the success of this project, they were the ones responsible at bedside to review the POLST forms prior to determining next steps. Education of bedside staff is a significant factor in successful implementation of POLST forms.

## ***Policy***

Policy regarding POLST forms has made great progress in the state of Alaska over last three years. In early 2022 the POLST form was accepted as the recommended form for end-of-life wishes replacing the Comfort One form. Later in the year physician assistants and nurse practitioners received authority to complete these forms with residents. This change increased the accessibility to POLST forms. This project was able to be implemented due to changes in policy which now allows for nurse practitioners to complete the POLST forms with residents and their responsible parties.

At this time, the recommended change for policy regarding POLST forms would be a required POLST training for all providers as this is a new form for several providers in the state of Alaska. Training should be required for emergency responders such as paramedics, firefighters, and police officers as well, as they are often first on the scene for deaths in the home, which may include reviewing a POLST form in the home.

## ***Research***

Future research regarding POLST forms should include how the POLST form affects care in long-term care facilities. This project showed a short time frame, with a limited number of participants, and only tracked hospital admission rates and emergency room visit rates. Future research could assess how many emergency room visits did not occur because a POLST was in place. Future research could also assess how often POLST forms are followed and utilized in long-term care. The role of POLST forms in long-term care needs further assessment.

## ***Dissemination***

Dissemination of this quality improvement project will take place through staff meetings and quality meetings. The goal will be to provide results to staff and leadership. The goal of dissemination is to show improvements that were made during the projects implementation, and provide support for ongoing change. Providing results during these two key meetings will reach most of the staff and key stakeholders at the long-term care facility.

## **ACCN DNP Essentials**

This quality improvement project supports that eight ACCN DNP essentials. During this project's development a literature search was constructed, literature was appraised for inclusion in the project, a PICOT question was constructed, a presentation pertaining to the DNP project was developed, and literature was synthesized. These actions demonstrate the first ACCN DNP essential of using scientific underpinnings for practice.

During the development of this DNP project the ACCN DNP essential two was utilized. ACCN DNP essential two is, organizational and systems leader for quality improvement and systems thinking. Essential two was utilized by attending quality improvement meetings, presenting at a quality meeting, along with identifying and meeting with stakeholders.

The ACCN DNP essential three, clinical scholarship and analytical methods for evidence-based practice, was also incorporated in the development, implementation, evaluation, and dissemination of the DNP project. Areas of incorporation include preparing manuscript, attending meeting pertinent to the project, conducting evaluation of the DNP project, participating in data collection and analysis, constructing IRB proposal, disseminating results, and implementation of the DNP project.

Essential four is information systems/technology and patient care technology for the improvement of transformation of healthcare. During the evaluation of this DNP project data extraction from a larger data set was collected. This demonstrates the inclusion of essential four in the DNP project.

The fifth DNP essential is health care policy for advocacy in healthcare. During this project participation on a committee at an institutional level did occur. During the project's development, implementation, and dissemination the investigator was involved in the quality improvement committee.

Essential six of the ACCN DNP essentials is interprofessional collaboration for improving patient and population health outcomes. This essential was met by consulting with both a mentor and a content expert. The mentor provided support

regarding the process of research. The content expert helped form plan implementation, helped with implementation, and provide support with data analysis. These working relationships were vital to the project.

Essential seven was incorporated in this project by identifying gaps in care for those in long-term care. During development of this project the lack of uniformed communication of end-of-life wishes was identified for those in long-term care facilities. This gap of care was identified and addressed during the development and implantation of this DNP project.

Lastly, essential eight is advance nursing practice. During this DNP project clients were assessed in the practice setting. Health conditions were reviewed, patients were assessed, and plans were developed to fit the wishes of the residents.

### **Summary**

This quality improvement project had significant findings for long-term care facilities including decreased emergency room visits with the use of POLST forms, increased education of staff resulting in more efficient use of POLST forms, and increased POLST forms on file to ensure resident focused care. Limitations included time frame and limited number of participants. There is work needed to ensure continued use of POLST forms in long-term care. However, with continued support in areas of future practice, education, policy, and research positive changes will occur.

This quality improvement project demonstrates the importance of POLST forms in long term care. This project not only showed improvement in emergency room visits, which is an important quality measure in long-term care, it also demonstrated that residents who had POLST forms on file had their documented wishes followed. This project's focus was on improving quality measures, however honoring resident wishes at end-of-life is also an important part of this project. With continued focus on using POLST forms in long-term care the quality of care provided in long-term care facilities will improve. The most important outcome of this project was increasing the number of wishes that were and will continued to be honored for patient at end-of-life.

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## Appendix A

### POLST Assessment Tool

Week \_\_\_\_\_, Resident ID \_\_\_\_\_

How many emergency room visits this week? \_\_\_\_\_

Was the patient admitted? (yes/no)

Where they long term care residents? (yes/no)

Did they have a POLST of file? (yes/no)

Was the POLST reviewed prior to sending patient to the emergency room? (yes/no/NA)

Was the emergency room updated with POLST information? (yes/no/NA)

How did the POLST form help make a decision on treatment plan?

---

Have you received any questions regarding POLST forms from family/residents? (yes/no)

If yes please explain:

---

Do you have any concerns about current POLST forms that are on file? (yes/no)

If yes please explain: \_\_\_\_\_

Do you have any general POLST form questions? (yes/no)

If yes please explain: -

---

---

Number of attendees \_\_\_\_\_

## Appendix B

### Hawai'i Pacific University Institutional Review Board Project Application

*Please complete and submit the form to the IRB chair via email: to irbchair@hpu.edu*

**Study title:** Effect of POLST Forms on Emergency Room Visits and Hospital Readmissions in Long Term Care

**Investigator:**

**Name:** Megan Jackson

(Please check one)

· Faculty · Student · Outside Investigator

**Phone:** 317-373-1006

**Email:** mjackson18@hpu.edu

**Sponsoring HPU Faculty Member:** Dr. Karen Collins

Please attach a brief summary of the project. This should include an explicit statement of methods, data collection, and how confidentiality of subjects/data will be protected including consent form.

**Category for Review:**

*Check one level of review (Exempt, Expedited, Full) for which you believe the project qualifies, and each criterion that your project meets.*

**X** Exempt from review (nil or minimal risk study, or already reviewed by an IRB)

Research involves ONLY investigation into or comparison of normal instructional strategies.

Tests, interviews, and surveys are unlikely to elicit emotion or place subjects at risk of civil/criminal liability or damage to their reputation, financial standing, employability, etc. AND information will not be recorded in such a way that subjects can be identified.

Research involves only the study or analysis of existing data, documents, records, or specimens that are publicly available or recorded in such a way that subjects cannot be identified.

If study involves ingestion of food: only wholesome food without additives in excess of USDA recommended levels is consumed.

**X** Brief informed consent will be done (except in the case of existing data, etc.).

No use of vulnerable subjects (children, prisoners, pregnant women, mentally ill, etc.).

Has already been approved by IRB at \_\_\_\_\_  
(Include copy of signed IRB approval form.)

**Expedited review (minor risk study)**

Research and data collection methods are unlikely to elicit strong emotion and deception is not involved.

Research involves only noninvasive, painless, and non-disfiguring collection of physical samples, such as hair, sweat, excreta.

No use of vulnerable subjects (children, prisoners, pregnant women, mentally ill, disabled, etc.).

Data are recorded using noninvasive, painless, and non-disfiguring sensors or equipment, such as EKG, weighing scales, voice/video recording.

Research involves only moderate levels of exercise in healthy volunteers.

Research does not involve ingestion of drugs or use of hazardous devices.

If existing data, documents, records, or specimens with identifiers are used, procedures are in place to ensure confidentiality.

Informed consent process will be done (attach copy of informed consent form).

Data will be kept confidential and not reported in identifiable fashion.

**Full review required (more than minor risk)**

*Attach a statement that describes the use of vulnerable subjects or the study procedures and conditions that place subjects at risk. Describe the precautions that will be taken to minimize these risks. Attach a copy of the informed consent form that will be used.*

Certification by Principal Investigator: The above represents a fair estimate of risks to human subjects.

Meghan M. FNP-C, 11/1/24  
Name/Title/Date

-----  
**FOR IRB USE ONLY**

Certification by IRB Chair: I have read this application and believe this research qualifies as:

- Exempt from IRB review  
 Appropriate for expedited review, and  
 approved  
 disapproved  
 Appropriate for review by the full IRB

[Signature] 11.23.2024  
IRB Chair Date  
#5604 202/168

## Appendix C

Medical Record #:

### Alaska POLST (Physician Orders for Life Sustaining Treatment) Form

Health care providers should complete this form only after a conversation with their patient or the patient's representative. The POLST decision-making process is for patients who are at risk for a life-threatening clinical event because they have a serious life-limiting medical condition, which may include advanced frailty.

<b>Patient Information.</b>		<b>Having a POLST form is always voluntary.</b>	
<b>This is a medical order, not an Advance Directive.</b>	Patient First Name: _____		
	Middle Name/Initial: _____ Preferred name: _____		
	Last Name: _____ Suffix (Jr, Sr, etc): _____		
	DOB (mm/dd/yyyy): ____/____/____ State where form was completed: _____		
	Gender: <input type="checkbox"/> M <input type="checkbox"/> F <input type="checkbox"/> X Social Security Number's last 4 digits (optional): xxx-xx-_____		
<b>A. Cardiopulmonary Resuscitation Orders. Follow these orders if patient has no pulse and is not breathing.</b>			
<b>Pick 1</b>	<input type="checkbox"/> <b>YES CPR: Attempt Resuscitation, including mechanical ventilation, defibrillation and cardioversion.</b> (Requires choosing Full Treatments in Section B)		<input type="checkbox"/> <b>NO CPR: Do Not Attempt Resuscitation.</b> (May choose any option in Section B)
<b>B. Initial Treatment Orders. Follow these orders if patient has a pulse and/or is breathing.</b>			
Reassess and discuss interventions with patient or patient representative regularly to ensure treatments are meeting patient's care goals. Consider a time-trial of interventions based on goals and specific outcomes.			
<b>Pick 1</b>	<input type="checkbox"/> <b>Full Treatments (required if choose CPR in Section A).</b> Goal: <u>Attempt to sustain life by all medically effective means.</u> Provide appropriate medical and surgical treatments as indicated to attempt to prolong life, including intensive care.		
	<input type="checkbox"/> <b>Selective Treatments.</b> Goal: <u>Attempt to restore function while avoiding intensive care and resuscitation efforts (ventilator, defibrillation and cardioversion).</u> May use non-invasive positive airway pressure, antibiotics and IV fluids as indicated. Avoid intensive care. Transfer to hospital if treatment needs cannot be met in current location, unless another treatment preference is documented in Section C of this form.		
	<input type="checkbox"/> <b>Comfort-focused Treatments.</b> Goal: <u>Maximize comfort through symptom management; allow natural death.</u> Use oxygen, suction and manual treatment of airway obstruction as needed for comfort. Avoid treatments listed in full or select treatments unless consistent with comfort goal. Transfer to hospital <b>only</b> if comfort cannot be achieved in current setting.		
<b>C. Additional Orders or Instructions.</b> These orders are in addition to those above (e.g., blood products, dialysis). [EMS protocols may limit emergency responder ability to act on orders in this section.]			
<b>D. Medically Assisted Nutrition (Offer food by mouth if desired by patient, safe and tolerated)</b>			
<b>Pick 1</b>	<input type="checkbox"/> Provide feeding through new or existing surgically-placed tubes		<input type="checkbox"/> No artificial means of nutrition desired
	<input type="checkbox"/> Trial period for artificial nutrition but no surgically-placed tubes		<input type="checkbox"/> Discussed but no decision made (standard of care provided)
<b>E. SIGNATURE: Patient or Patient Representative (optional)</b>			
I understand this form is voluntary. I have discussed my treatment options and goals of care with my provider. If signing as the patient's representative, the treatments are consistent with the patient's known wishes and in their best interest.			
✕ (optional)			
If other than patient, print full name of person consenting (or non-opposition in instance of guardian)			<b>Authority:</b>
<b>F. SIGNATURE: Health Care Provider (required, eSigned documents are valid)</b> Verbal orders are acceptable with follow up signature.			
I have confirmed that this order was discussed with the patient or his/her representative. The orders reflect the patient's known wishes, to the best of my knowledge. [Note: Only licensed health care providers authorized by law to sign POLST form in Alaska may sign this order.]			
✕ (required)		<b>Date</b> (mm/dd/yyyy): Required	<b>Phone #:</b>
Printed Full Name:			<b>License/Cert. #:</b>

A copied, faxed or electronic version of this form is a legal and valid medical order. This form does not expire. **Version 1, June 3, 2020.**

<b>Patient Full Name:</b>		
<b>Form Completion Information (required)</b>		
Reviewed patient's advance directive to confirm no conflict with POLST orders: (A POLST form does not replace an advance directive or living will)	<input type="checkbox"/> Yes; date of the document reviewed: _____ <input type="checkbox"/> Conflict exists, notified patient (if patient lacks capacity, noted in chart) <input type="checkbox"/> Advance directive not available <input type="checkbox"/> No advance directive exists	
Check everyone who participated in discussion:	<input type="checkbox"/> Patient with decision-making capacity <input type="checkbox"/> Legal Surrogate / Health Care Agent	<input type="checkbox"/> Court Appointed Guardian <input type="checkbox"/> Parent of Minor <input type="checkbox"/> Other: _____
Professional Assisting Health Care Provider w/ Form Completion (if applicable): Full Name:	Date (mm/dd/yyyy): / /	Phone #: ( )
This individual is the patient's: <input type="checkbox"/> Physician's Assistant <input type="checkbox"/> Social Worker <input type="checkbox"/> Nurse <input type="checkbox"/> Clergy <input type="checkbox"/> Other:		
<b>Contact Information (optional)</b>		
Patient's Emergency Contact, (Note: Listing a person here does <b>not</b> grant them authority to be a legal representative. Only an advance directive or state law can grant that authority.)		
Full Name:	<input type="checkbox"/> Legal Representative <input type="checkbox"/> Other emergency contact	Phone #: Day: ( ) Night: ( )
Primary Care Provider Name:	Phone: ( )	
<input type="checkbox"/> Patient is enrolled in hospice	Name of Agency:	
	Agency Phone: ( )	
<b>Form Information &amp; Instructions</b>		
<ul style="list-style-type: none"> <li>• <b>Completing a POLST form:</b> <ul style="list-style-type: none"> <li>- Provider should document basis for this form in the patient's medical record notes.</li> <li>- Patient representative is determined by Alaska Statute, and in accordance with state law, may be able execute or void this POLST form only if the patient lacks decision-making capacity.</li> <li>- Only licensed health care providers authorized to sign POLST forms in Alaska (M.D./D.O.) can sign this form.</li> <li>- Original (if available) is given to patient; provider keeps a copy in medical record.</li> <li>- Last 4 digits of SSN are optional but can help identify / match a patient to their form.</li> <li>- If a translated POLST form is used during conversation, attach the translation to the signed English form.</li> <li>- The most recently completed valid POLST form supersedes all previously completed POLST forms.</li> </ul> </li> <li>• <b>Using a POLST form:</b> <ul style="list-style-type: none"> <li>- Any incomplete section of POLST creates no presumption about patient's preferences for treatment. Provide standard of care.</li> <li>- No defibrillator (including automated external defibrillators) or chest compressions should be used if "No CPR" is chosen.</li> <li>- For all options, use medication by any appropriate route, positioning, wound care and other measures to relieve pain and suffering.</li> </ul> </li> <li>• <b>Reviewing a POLST form:</b> This form does not expire but should be reviewed whenever the patient:             <ol style="list-style-type: none"> <li>(1) is transferred from one care setting or level to another;</li> <li>(2) has a substantial change in health status;</li> <li>(3) changes primary provider; or</li> <li>(4) changes his/her treatment preferences or goals of care.</li> </ol> </li> <li>• <b>Modifying a POLST form:</b> This form cannot be modified. If changes are needed, void form and complete a new POLST form.</li> <li>• <b>Voiding a POLST form:</b> <ul style="list-style-type: none"> <li>- <b>If a patient or patient representative (for patients lacking capacity) wants to void the form:</b> destroy paper form and contact patient's health care provider to void orders in patient's medical record (and POLST registry, if applicable).</li> <li>- <b>For health care providers:</b> destroy patient copy (if possible), note in patient record form is voided and notify registries (if applicable).</li> </ul> </li> <li>• This form may be added to a secure electronic registry so health care providers can find it.</li> </ul>		
For Barcodes / ID Sticker		

## Appendix D

### Johns Hopkins Individual Evidence Summary Tool

EBP Project Practice Question:								
Article Number	Author, Date, and Title	Type of Evidence	Population, size, and setting	Intervention	Findings that help answer the EBP question	Measures used	Limitations	Evidence level & quality
EXAMPLE 1	EXAMPLE Michaud, T.L., Siahpush, M., Schwab, R. J., Eiland, L. A., DeVany, M., Hansen, G., Slachetka, T. S., Boilesen, E., Tak, H. J., Wilson, F. A., Wang, H., Pagán, J. A., & Su, D. (2018). Remote patient monitoring and clinical outcomes for post-discharge patients with type 2 diabetes. <i>Population Health Management</i> , 21(5), 387–394. <a href="https://doi.org/10.1089/pop.2017.0175">https://doi.org/10.1089/pop.2017.0175</a>  Permalink <a href="https://chamberlain.primo.exlibrisgroup.com/permalink/01CUCON_INST/f6kb8f/cdi_proquest_miscellaneous_2019041682">https://chamberlain.primo.exlibrisgroup.com/permalink/01CUCON_INST/f6kb8f/cdi_proquest_miscellaneous_2019041682</a>	EXAMPLE Quantitative research with a retrospective, observational design.	EXAMPLE Sample/size = 955 patients 19 years of age and older with T2D that were discharged from the inpatient setting within 30 days  Sample Size = 955  Setting = Nebraska	EXAMPLE This study looked at the effects of utilizing a remote patient monitoring system on the health outcomes of patients with T2D.	EXAMPLE After the study, 69% of those who began the study with an HbA1c of >9% ended the study with an HbA1c of ≤9%. Similarly, from baseline to the end of the study, patients' mean weight had decreased from 225lb to 222lb, and mean BMI had decreased from 35.59 to 35.23. Patient activation scores rose from 63.37 at baseline to 69.17 at the end of the study.	EXAMPLE The researchers measured HbA1c, weight, BMI, BP, and patient activation scores.	EXAMPLE One limitation is inconsistent devices used, as some patients could use their glucometer rather than the one provided in the study. Other limitations include that there was no expectation to complete measurements on the weekends.	EXAMPLE Level III, Quality C
1	Lee, R. Y., Brumback, L. C., Sathitratana, S., Lober, W. B., Modes, M. E., Lynch,	Retrospective cohort study	Sample size: 1818, patient with POLSTs and with chronic illness who	This study examined the association between POLST order and ICU admission during the	POLST forms were associated with lower rates of ICU admission compared to those who received full treatment	The researcher used Poisson regression to measure the association between the primary outcome of ICU	Enrolling patients with POLSTs hospitalized near the end of life and measuring POLST discordant care in the hospital, these finding do no	Level: III Quality: B

	<p>Y. T., Ambrose, C. I., Sibley, J., Vranas, K. C., Sullivan, D. R., Engelberg, R. A., Curtis, J. R., &amp; Kross, E. K. (2020). Association of Physician Orders for Life-Sustaining Treatment With ICU Admission Among Patients Hospitalized Near the End of Life. <i>JAMA: Journal of the American Medical Association</i>, 323(10), 950–960. <a href="https://doi.org/hpu.idm.oclc.org/10.1001/jama.2019.22523">https://doi.org/hpu.idm.oclc.org/10.1001/jama.2019.22523</a></p>		<p>died between January 1, 2010 and December 31, 2017. Setting: academic health care system</p>	<p>last hospitalization of life, a secondary outcomes was a composite of 4 life sustaining treatments</p>		<p>admission and POLST order for medical interventions.</p>	<p>apply to patients with POSTs who are not hospitalized near the end of life. The study only included POLST discordant care that occurred at the study hospitals and may misclassify patients who received POLST discordant care at another hospital. The study was unable to evaluate POLST discordant care delivered to individuals who go on to survive their critical illness. The study only included POLSTs on file at the study hospitals. Data from death certificates, claims data, and HER are susceptible to misclassification. Analyses did not account for difference in care between the 2 hospitals within the study.</p>	
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2	<p>Jennings, L. A., Wenger, N. S., Liang, L. J., Parikh, P., Powell, D., Escarce, J. J., &amp; Zingmond, D. (2022). Care preferences in physician orders for life sustaining treatment in California nursing homes. <i>Journal of the American Geriatrics Society</i>, 70(7), 2040–2050.  <a href="https://doi.org/hpu.idm.oclc.org/10.1111/jgs.17737">https://doi.org/hpu.idm.oclc.org/10.1111/jgs.17737</a></p>	Serial cross sectional design	Population: 322,181 California nursing home residents who had POLST on file	This study looked at Minimum Data Set to determine if POLST were on file and then compared the number of POLST of file with the overall facility quality	Higher POLST completion rate was associated with higher CMS five-star facility quality ratings.	Logistic mixed effects regression models to estimate POLST completion and resuscitation orders to understand the relationship with resident and facility characteristics, including Centers for Medicare and Medicaid Services Nursing Home Compare overall five-star quality rating	Limitations include being limited to only patients in nursing homes in a large state that requires administrative reporting of POLST completion and treatment orders. May not be able to be generalized with to other states. Study reflects data from 2011-2016 does not reflect post COVID era.	Level II, Quality A
3	<p>Tark, A., Agarwal, M., Dick, A. W., Song, J., &amp; Stone, P. W. (2021). Impact of the</p>	Retrospective, cross sectional analysis	Population: 1009372 Size: individuals who died in 2013 who had an MDS on file	This study examined the impact of POLST maturity status on the nursing home death	It was determined that mature and developing POLST maturity status were positively associated with greater odd of dying in nursing home among long term care	POLST program maturity and number of deaths in nursing homes (in place)	Could have explored more outcomes that could have offered findings that ere not discussed the study. Could have	Level 3, quality A

	Physician Orders for Life-Sustaining Treatment (POLST) Program Maturity Status on the Nursing Home Resident's Place of Death. <i>The American journal of hospice &amp; palliative care</i> , 38(7), 812–822. <a href="https://doi.org/hpu.idm.oclc.org/10.1177/1049909120956650">https://doi.org/hpu.idm.oclc.org/10.1177/1049909120956650</a>		Setting: nursing homes	amount elderly residents.	residents.		made more options for place of death vs in nursing home and out of nursing home. Did not account for those discharged to a hospice setting. Due to cross sectional analysis the relationship is only an association not a causation	
4	Russell, E., Hall, A. K., McKaigney, C., Goldie, C., Harle, I., & Sivilotti, M. L. A.	Cross sectional study	Population: 85 patients who had one of the follow criteria: palliative care consult within the past 3 months, metastatic malignancy, home	Outcome measures included retrieval of established code status by accompanying paperwork or EHR (electronic health record) and the time it took to	Only 36% of patients had a code status on file. Almost all code statuses were found in the EHR. 28/31 code status found were found under the correct tab for this EHR advanced directives. Retrieving from other sources added time for retrieval. When code status documents could be located code	Demographic information collected, presenting complaint documented, and Canadian Triage Acuity Scale was recorded. Time search was one measure to document time spent looking for document.	<ol style="list-style-type: none"> <li>1. Evolving EHR</li> <li>2. Limited recruitment times due to staffing</li> <li>3. Only 50% of study participants consented for interview</li> <li>4. This study took place in an</li> </ol>	Level III, quality A

	<p>(2021). Code Status Documenta tion Availabilit y and Accuracy Among Emergency Patients with Endstage Disease. W estern Journal of Emergency Medicine: Integrating Emergency Care with Population</p>		<p>oxygen for COPD or heart failure, dialysis for chronic renal disease, progressive neurodege nerative disease Setting: tertiary care hospital</p>	<p>recover code status, and concordance between the documented code status versus current wishes. Interventions were performing a timed search for code status in available records, there was a set plan for standard medical record search. Search was "timed out" at 15 mins.</p>	<p>status agreed well but not always perfectly with current patient wishes. Those who were admitted from long term care or assisted living facility were more likely to have documented code statuses that could be located.</p>	<p>Scripted interview was a second measure which included questions regarding current code status, knowledge of laws governing resuscitation, attitudes about the importance of code status, and about past invasive resuscitations or ICU admissions.</p>	<p>academic tertiary care center where typically a member of the care team could be tasked with reviewing patient's prior code status documenta tion were not all ED settings have enough physician resources to assign a team member this task.</p>	
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	Health, 22(3), 628–635. <a href="https://doi.org/hpu.id">https://doi.org/hpu.id</a> <a href="https://m.oclc.org/10.5811/westjem.2020.12.46801">m.oclc.org/10.5811/westjem.2020.12.46801</a>							
5	Hickman, S. E., Torke, A. M., Sachs, G. A., Sudore, R. L., Tang, Q., Bakoyannis, G., Smith, N. H., Myers, A. L., & Hammes, B. J. (2021). Do Life-sustaining	Expert Opinion	Nursing home residents using POLST forms	Focus is on using POLST as a code status form, risk associated with this practice, and recommendations for nursing homes to implement appropriate use of POLST.	<p>Recommendations:</p> <ul style="list-style-type: none"> <li>• Develop and implement a process that incorporates both a strategy to documents code status at admission and POLST on follow up</li> <li>• Identify who is eligible and appropriate for a POLST</li> <li>• Conduct ongoing staff training about POLST</li> <li>• Use distinct forms to document code status</li> <li>• Develop</li> </ul>	NA	NA	Level V, Quality B

	<p>Treatment Orders Match Patient and Surrogate Preferences? The Role of POLST. JGIM: Journal of General Internal Medicine, 36(2), 413–421. <a href="https://doi.org.hpu.idm.org/clc.org/10.1007/s11606-020-06292-1">https://doi.org.hpu.idm.org/clc.org/10.1007/s11606-020-06292-1</a></p>				<p>alternative strategies to communicate code status</p> <ul style="list-style-type: none"> <li>• Review and revise specific policies for code status orders and appropriate use of POLST</li> <li>• Leverage surveyors to promote appropriate POLST use</li> </ul>			
6	<p>Lam, K., Haddock, L., &amp; Yukawa, M. (2022). More polst forms are</p>	<p>Expert opinion</p>	<p>Population: nursing home residents in the state of California</p>	<p>If more POLST form completion equals better care</p>	<p>Situations differ from when POLST form is completed and when situation arises when it actually needs to be used. POLST forms</p>	<p>N/A</p>	<p>N/A</p>	<p>Level V; Quality B</p>

	being completed in nursing homes, but is this meaningful? <i>Journal of the American Geriatrics Society</i> , 70(7), 1950–1953. <a href="https://doi.org/10.1111/jgs.17904">https://doi.org/10.1111/jgs.17904</a>				are needed for those who are at risk for life threatening events due to medical conditions or advanced frailty, which are not always characteristics of short term nursing home residents.			
7	Riley, S. R., Voisin, C., Stevens, E. E., Bose-Brill, S., & Moss, K. O. (2024). Tools for tomorrow: a scoping review of patient-facing tools for	Scoping review	Sample size: 160 articles	Data was extracted from databases to determine what tools, programs, or interventions were used for ACP.	One challenge is there are 99 different tools to address advanced care planning. Most frequent used tools were PREPARE for your care, PROVEN, Hello Project, Making Your Wishes Known, Planning Your Medical Future, Patient-Centered Advance Care Planning, and Sharing Patient's Illness Representation to Increase Trust.	Data Extraction to determine what tools were being used, calculating how many times these tools were mentioned in review	Possibly that review missed relevant studies. Data extraction did not assess the quality of studies included. Data extraction did not consider grey literature, nonempirical literature, or web sites.	Level V, quality A

	advance care planning. Palliative Care & Social Practice, 1–21. <a href="https://doi.org.hpu.idm.org/clc.org/10.1177/26323524241263108">https://doi.org.hpu.idm.org/clc.org/10.1177/26323524241263108</a>							
8	Rubins J. B. (2020). Underutilization of Portable Orders for Life-Sustaining Treatment at	Retrospective observational study	Population: 18+ hospitalized between June 2017-June 2019-N:160 who had a change from full code to dnr status during hospital stay and survived hospital stay Setting: level 1	Electronic health records were searched for patients admitted during June 2017 and June 2019 that had DNR placed during hospitalization. POLST forms were manually extracted from electronic health records.	After changing to DNR status only 50 of the 160 patients had POLST forms completed before discharge.	The measurement was the number of POLST orders written prior to discharge for patient with a change in code status from full code to DNR during hospital stay.	No listed limitations.	Level III, quality B

	Discharge from Hospital: Observatio nal Study at US Academic Trauma Center. <i>Jou rnal of general internal medicine, 3 5(7), 2065- 2068. <a href="https://doi-org.hpu.idm.oclc.org/10.1007/s11606-020-05698-1">https://doi- org.hpu.id m.oclc.org/ 10.1007/s1 1606-020- 05698-1</a></i>		trauma and academic hospital in Minneapolis, MN					
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9	<p>An, H. J., Jeon, H. J., Chun, S. H., Jung, H. A., Ahn, H. K., Lee, K. H., Kim, M. H., Kim, J. H., Cheon, J., Kim, J., &amp; Koh, S. J. (2019). Feasibility Study of Physician Orders for Life-Sustaining Treatment for Patients with</p>	<p>Cross sectional study</p>	<p>Population: patients with terminal cancer greater than 20 years of age and capable of communicating. N=336 Setting: seven general hospitals</p>	<p>Concept of the POLST was introduced to eligible patients. If not introduced questionnaire regarding physician barriers was issued. If patient declined further discussion of form a patient questionnaire was given to determine patient barriers.</p>	<p>POLST form introduced to 202 patients, 105 signed the form indicating a POLST completion rate of 52%. Findings are that even though the POLST was introduced there is stable a low completion rate.</p>	<p>Measurement used was completion of the POLST of not.</p>	<ol style="list-style-type: none"> <li>1. Selection bias existed for overestimating results</li> <li>2. Providers familiar with the POLST participated in the study</li> <li>3. Limited participants due to communication difficulties</li> <li>4. Poor questionnaire completion from families and providers</li> <li>5. Focus is POLST completion not evaluation qualities or outcomes of the POLST</li> </ol>	<p>Level III, B</p>
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	Terminal Cancer. <i>Ca ncer research and treatment</i> , 51(4), 1632– 1638. <a href="https://doi.org/hpu.id">https://doi- org.hpu.id</a> <a href="https://m.oclc.org/10.4143/crt.2019.009">m.oclc.org/ 10.4143/crt .2019.009</a>							
10	Naasan, G., Boyd, N. D., Harrison, K. L., Garrett, S. B., D'Aguiar Rosa, T., Pérez- Cerpa, B., McFarlane, S., Miller, B. L., & Ritchie, C.	Chart Review	Sample: 746 deceased patients seen in tertiary memory care center between 2012-2017	Rates of documented advanced directives, POLST, and DNR status were calculated from review and regression analysis was used to determine	At the time of death half of patients had a documented advanced directive or a DNR status and 37% had a POLST on file. POLST were more frequently completed within two years of death. Those who presented at a younger ago and spoke English were more likely to have	The rates of advanced directives, POLST, and DNR status and patient characteristics including: sex, age, race, primary language spoken, marital status, insurance,	One limitation was retrospective design, study used electronic medical records where not all advance care planning may have been captured and lack of access to comprehensive measures of wealth and socioeconomic	Level III, quality A

	S. (2022). Advance Directive and POLST Documentation in Decedents With Dementia at a Memory Care Center: The Importance of Early Advance Care Planning. <i>Neurology. Clinical practice</i> , 12(1), 14–21. <a href="https://doi.org/hpu.idm.oclc.org/10.1212/CJ.0000000000001123">https://doi.org/hpu.idm.oclc.org/10.1212/CJ.0000000000001123</a>			associated between advance care planning and patient characteristics	advance directives. Those living in zip codes with lower household incomes were 2-4.5 times less likely to have a POLST of DNR documentation.	educations, primary diagnosis, median income per zip code, and enrollment in hospice information.	status.	
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11	Vranas, K. C., Lin, A. L., Zive, D., Tolle, S. W., Halpern, S. D., Slatore, C. G., Newgard, C., Lee, R. Y., Kross, E. K., &	Retrospective cohort study	Population: 26,128 patients that presented to the ED at an academic medical center in Oregon	Main interventions looked at were POLST form completion and treatment limitations	Compared to POLST forms with full treatment orders those with treatment limitations were associated with decreased LOS and decreased ICU admissions. POLST with	For patients with POLST forms a post-hoc evaluation of the association of POLST completion with hospital admission.	Limitations include being a retrospective study performed in a single setting, study took place in a state that has had intensive and ongoing efforts to	Level: II, Quality: B
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	Sullivan, D. R. (2020). The Association of Physician Orders for Life-Sustaining Treatment With Intensity of Treatment Among Patients Presenting to the Emergency Department. <i>Annals of emergency medicine</i> , 75(2), 171–180. <a href="https://doi.org/hpu.idm.org/hpu.idm.org/10.1016/j.annemergmed.2019.05.008">https://doi.org/hpu.idm.org/hpu.idm.org/10.1016/j.annemergmed.2019.05.008</a>		between 4/2015-10/2016.		limited treatment were not associated with hospital admission, aggressive medical treatment, in hospital mortality, or ICU LOS.		implement POLST over the last two decades therefore limiting generalizability. In this study ICU admission and aggressive medical treatment were infrequent, and the association of POLST preferences with these outcomes may be underpowered.	
12	1. Lee, R. Y., Curtis, J. R., & Kross, E. K. (2020). Physician Orders for Life-Sustaining Treatment and ICU Admission Near the End of Life-Reply. <i>JAMA</i> , 324(6),	Expert opinion	This opinion is geared towards POLST-discordant intensive care	Recommended intervention is to validate patient's POLSTs during acute illness. It is important for clinicians to help guide care that is focus on POLST form wishes	Recommendation: completing POLST that are firmly grounded in patient's values and goals, providing additional documentation of these values and goals in the medical record to capture nuances and facilitate future recall, and preparing and supporting patient's family members and surrogates to advocate for patient centered decisions during critical illness	NA	NA	Level V; quality B

	608–609. <a href="https://doi.org/hpu.idm.oclc.org/10.1001/jama.2020.8654">https://doi = org.hpu.id m.oclc.org/ 10.1001/ja ma.2020.8 654</a>							
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## Appendix E

### DNP Essentials and Relationship to DNP Project

Essential Number	Description of AACN DNP Essential	Relationship to DNP Project
I	Scientific Underpinnings for Practice	<ul style="list-style-type: none"> <li>• Appraise literature for inclusion</li> <li>• Construct literature search</li> <li>• Construct PICOT question</li> <li>• Make presentation pertaining to DNP project</li> <li>• Synthesize literature review</li> </ul>
II	Organizational & Systems Leadership for QI & Economics	<ul style="list-style-type: none"> <li>• Attend quality improvement meeting</li> <li>• Present at a quality meeting</li> <li>• Identify stakeholders</li> <li>• Meet with stakeholders</li> </ul>
III	EBP/Translational Science	<ul style="list-style-type: none"> <li>• Prepare final DNP project manuscript</li> <li>• Attend meetings pertinent to project</li> <li>• Conduct evaluation of DNP project</li> <li>• Participate in data analysis</li> <li>• Participate in data collection</li> <li>• Construct IRB proposal</li> <li>• Disseminate DNP project findings internally</li> <li>• Implement DNP project</li> <li>• Submit IRB prescreening Review Form and institutional documents</li> <li>• Create presentation for quality</li> </ul>
IV	Information Systems/Technology	<ul style="list-style-type: none"> <li>• Perform data extraction activities from large data sets</li> </ul>
V	Health Care Policy & Ethics	<ul style="list-style-type: none"> <li>• Participate on committee at an institutional level</li> </ul>
VI	Interprofessional Collaboration	<ul style="list-style-type: none"> <li>• Consult with mentor</li> <li>• Consult with content expert</li> </ul>
VII	Prevention & Population Health	<ul style="list-style-type: none"> <li>• Identify gaps in care for individuals</li> </ul>
VIII	Advanced Nursing Practice & Education	<ul style="list-style-type: none"> <li>• Assess clients, populations, or organizations in a practice setting</li> </ul>