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# **DNR No POLST Project**

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DNR No POLST Project Prospectus

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#### Abstract

**Problem:** The DNR No POLST project aims to increase the number of physician orders for life-sustaining treatment (POLST) forms completed on hospitalized patients who are designated DNR status. Currently, there is no process for ensuring completion of advanced care planning (ACP) materials, including the POLST form, on designated DNR patients throughout the hospital. Ensuring patients receive a complete and accurate POLST prior to discharge decreases the chance of unwanted overtreatment.

Context: This quality improvement project utilizes regionally trained life care plan (LCP) facilitators to initiate and assist patients and families in the completion of the POLST form. Approximately 70% of the patient population is over the age of 65 years, with two or more chronic conditions, making them ideal candidates for discussions about healthcare wishes. The top three common diagnoses of this patient population are congestive heart failure, chronic obstructive pulmonary disease, and chronic kidney disease.

Intervention: This project implemented direct LCP facilitator engagement with hospital-based physicians to complete accurate, quality POLST forms on all hospitalized DNR patients. A process map was developed by the team, with input from senior leadership and physician champion. The process for POLST completion is followed each day to maximize the number of POLST forms completed prior to patient discharge.

**Measures**: Measures for the DNR No POLST project are designed to capture the daily census of DNR patients admitted to the hospital without a POLST in place. The outcome measure for this project is the percent of patients with a completed POLST form prior to discharge.

**Results:** The DNR No POLST project revealed successful results over the last seven months. An average of 92% completion rate of POLST forms on DNR designated patients was maintained

during the project timeline. The current results of this project were above the set 65% aim in all instances. It is expected this project will continue to produce these exceptional results.

Conclusions: The DNR No POLST project is significant. The objective of the DNR No POLST project is to ensure that patients receive medical care that aligns with their values. This project encourages patients and families to have crucial conversations with their healthcare providers. It also facilitates proper documentation of patient preferences regarding code status and medical treatment. The POLST form provides a critical platform for end-of-life discussions in which patient preferences can be converted into medical orders. The POLST allows for the communication of patient preferences when patients are unable speak for themselves. It is expected this project will increase awareness about the importance of POLST completion to understand and honor patients' medical wishes.

### **Section II: Introduction**

The healthcare environment today is dynamic and ever-changing. At every level of the healthcare environment, nurses must make a commitment to the change process and take active roles to become change agents (Finkelman, 2016). The clinical nurse leader (CNL) role fosters change by engaging with patients and staff to improve care. The CNL also promotes change from within each microsystem, which is related to the CNL's inherent desire to improve care for patients and the healthcare system. CNLs within microsystems have a goal of changing practice dynamics to improve care quality and safety outcomes (Bender et al., 2016).

Advanced care planning (ACP) is the process surrounding discussions and the formulation of plans for the care patients wish to receive at end-of-life. In the Joanna Briggs Institute Evidence Summary by Marin (2018), proper and comprehensive ACP was demonstrated to positively impact end-of-life care in elderly patients, as well as in those suffering from extensive disease. Marin reported that combining patient-centered ACP with easy-to-read advance directives for patients with chronic illness resulted in statistically significant higher ACP documentation, compared to advance directives alone (35% vs. 25%). There was also a significant difference between the intervention group and the control group (86% vs. 30%, p < 0.001) of whether end-of-life wishes had been known, documented, and followed (Marin, 2018). Evidence from this summary suggests that most people appreciate and value having these crucial discussions with their healthcare providers. This is especially true when these preferences are ultimately respected and carried out at the end-of-life (Marin, 2018).

Since 2013, Kaiser Permanente Northern California has prioritized and engaged in a systemic effort to "elicit, document, and honor the care preferences of patients" (Hopping-Winn et al., 2018, p. 1) through clinician-facilitated life care plan (LCP) discussions. These discussions

are designed to explore the patient's values, beliefs, and goals related to their current illnesses.

These discussions are then translated onto physician orders for life-sustaining treatment

(POLST) form as actionable medical orders (Appendix A), which are followed across all care settings.

## **Problem Description**

It is standard practice when a patient presents to the emergency department for the physician to ask the patient about their wishes regarding code status. Varying interpretations of do not resuscitate (DNR) by patients, families, and hospital staff impact the process of identifying a patient's code status upon entering the hospital (Pirinea et al., 2016). When healthcare providers have an accurate understanding of the advanced healthcare directive (AHCD) and POLST form, they can properly educate patients and their families. This education increases the chances for patients and families to make informed and appropriate decisions regarding the patient's healthcare preferences (Pirinea et al., 2016). Current research and literature support that due to lack of documented preferences, patients can often receive unwanted over treatment. Paris and Moore (2017) indicated that although one-third of patients preferred DNR status, only 47% of physicians accurately reported these preferences, and nearly half of these patients did not have a written DNR order. Therefore, patients are at risk of receiving unwanted over treatment because they are not given the opportunity to state their preferences and properly document those preferences using a POLST form.

The POLST project aims at translating an individual's wishes for care during serious or chronic illness into medical orders that honor those preferences for medical treatment. According to the Coalition for Compassionate Care California (CCCC; 2020), the POLST is a form that gives serious or chronically ill patients more control over their end-of-life care, including

choosing potential medical treatments, extraordinary life-sustaining measures, and cardiopulmonary resuscitation. Printed on ultra-pink cardstock paper, once signed by both patient and physician, nurse practitioner, or physician assistant, the valid POLST form can prevent unwanted or ineffective treatments, reduce patient and family suffering, and ensure that a patient's wishes are honored (CCCC, 2020).

The transitional care program (TCP) is a community care program providing outreach to medium- and high-risk patients and delivering education, guidance, and support throughout the transitions of care. Approximately 70% of the TCP population is over the age of 65 years, with two or more chronic conditions, making them ideal candidates for discussions about healthcare preferences. The top three common diagnoses of the TCP population are congestive heart failure, chronic obstructive pulmonary disease, and chronic kidney disease.

Currently, there is no process for completing ACP materials, including the POLST form, on designated DNR patients. As a result, many DNR patients discharge from the hospital without legal documentation to protect their healthcare wishes. The TCP department is in a unique position to work with the inpatient population to facilitate and properly document healthcare wishes and to provide individual follow-up post-discharge. The top metrics that matter within this department are the inpatient DNR registry, LCP registry, claims and referrals, and transitions dashboard. These metrics are monitored at the regional level and reported monthly. There are also significant financial implications for the medical center if patients are given unwanted treatment due to a lack of documented healthcare preferences.

### Available Knowledge

The PICOT question used for the literature search and synthesis of evidence for the DNR No POLST project asks: In patients who designate themselves do not resuscitate (DNR) status

(P), how does completion of physician orders for life-sustaining treatment (POLST) form (I), compared to no intervention (C), affect overall concordance of end-of-life treatment preferences and wishes (O)? Data were synthesized after completing a comprehensive literature search using the following databases: Cochrane Database of Systematic Reviews, CINAHL, PubMed, and Joanna Briggs. The databases were searched using the main topics and themes from the PICOT question and included the following search terms: advance planning, POLST, advance health care directive, advanced steps conversation, end-of-life wishes, end-of-life care, and care concordance. Limitations were set to include English-only and peer-reviewed articles, with publication dates no earlier than 2011. Seven articles were chosen based on relevance to the PICOT question and the population groups included in the studies. The studies were rated using the Johns Hopkins Nursing Evidence-Based Practice Research Evidence Appraisal tool (Dang & Dearholt, 2018).

One Cochrane review of randomized control studies (RCTs) and quasi-RCTs was appraised at a Level II A. The study promotes ACP in patients with end-stage renal disease requiring haemodialysis on a larger scale (Lim et al., 2016). Lim et al. (2016) highlighted ACP as an essential part of good palliative care that likely improves the lives and deaths of haemodialysis patients. Two retrospective cohort studies, one cross-sectional study, and one descriptive retrospective study were all appraised as Level III A. Both retrospective cohort studies revealed a high degree of concordance between care preferences and care received when proper and comprehensive ACP is complete (Hopping-Winn et al., 2017; Pedraza et al., 2017). In a cross-sectional study, Hayes et al. (2017) discussed differing legislation in mature POLST paradigm states that allow advanced practice nurses (APRNs) to complete and sign POLST forms as part of a comprehensive, interdisciplinary team.

In a descriptive retrospective study, Zive et al. (2019) highlighted substantial increases in time from POLST completion to death between two cohorts, as well as an increase in the number of decedents with an active POLST in the registry. One single-arm feasibility study, rated Level IIIB, revealed that POLST facilitation was found useful in frail older adults already enrolled in a complex care management program (Torke et al., 2018). In a systematic review of qualitative research, Vearrier (2016) emphasized that policy should focus on a communications-based approach to ACP and include ongoing interactions between healthcare providers and patients to optimize end-of-life medical care. See Appendix B for the evaluation table of evidence-based research.

The body of evidence unanimously revealed appropriately conduced ACP will increase patient autonomy, dignity, and peace, as well as provide support and guidance at end-of-life. Having comprehensive ACP in place is an indicator of high-quality care for patients and families and, ultimately, can lead to decreased resource utilization and overall costs for the healthcare system (Hopping-Winn et al., 2017). Accurate and complete ACP materials, including POLST and AHCDs, are invaluable tools when used during ongoing, communications-based ACP in chronically ill, medically frail, older adults.

#### Rationale

Jean Watson's (2008) caring theory and McGonigal's (2017) 4C change model will form the conceptual framework for this review. Looking at this simple, yet effective change model and combining it with Watson's caring theory will help guide the DNR No POLST project. Care, compassion, and consciousness are critical components to ensure success throughout all stages of ACP and end-of-life discussions. This framework will provide the foundation to empower and

engage staff and patients, creating a deeper understanding of the importance of ACP throughout all stages of life.

The major elements and core concepts of Watson's theory are (a) a relational caring for self and others, (b) the transpersonal caring relationship, (c) the caring occasion/caring moment, (d) multiple ways of knowing, and (e) reflective/meditative approach (Wagner, 2010). Watson (2008) described the Greek word *caritas*, meaning to cherish and to give special loving attention. The clinical caritas processes are comprised of 10 elements and aim to honor the "human dimensions of nursing's work and the inner life world and subjective experiences of the people we serve" (Watson, 2008, p. 50). Watson's (2008) caring theory and the 10 caritas processes provide guidelines for putting love and heart-centered practice into action. Utilizing the elements of this caring theory allows nurses and healthcare providers to work with care and passion. It establishes a transpersonal caring relationship that will ultimately protect, enhance, and preserve patients' dignity and humanity at all stages of their care.

Foundationally, the 4C model incorporates Kotter's model of change theory; however, it was modified to promote a simplistic process aimed at the novice quality improvement facilitator (McGonigal, 2017). Center, collaboration, change, and celebration help engage staff at any level, focusing on quality improvement and process improvement. Centering on an issue, collaborating with team members, using the change process, and celebrating successes are key factors imperative to address when initiating process improvement cycles and leading change within an organization. McGonigal (2017) noted that this model can be implemented for simple to complex problems and may influence an organization's desire to improve clinical and nonclinical outcomes.

# **Specific Aim**

The specific aim for the DNR No POLST project at this medical center is to increase the number of POLST forms completed on hospitalized patients who are designated DNR status and who do not have a POLST from a baseline of 40% to 65% by August 2020.

### **Section III: Methods**

#### Context

According to the Dartmouth Institute (2005), clinical microsystems are the frontline units that provide the most healthcare to the most people. These microsystems are "the place where patients, families and care teams meet" (Dartmouth Institute, 2005, p. 2). Microsystems are the key building blocks that form successful healthcare systems. This microsystem was evaluated using the specialty care practice profile worksheet from the Dartmouth Institute (see Appendix C).

The TCP promotes continuity of care within the healthcare system and throughout the community. Transitional care is defined as "a broad range of time-limited services designed to ensure health care continuity and promote the safe and timely transfer of at-risk patients from one level of care to another or one type of setting to another" (Lovelace et al., 2016, p. 278). Transitions in healthcare are inherently risky times, with research showing that a successful transitional care department can drastically reduce readmission rates and, in turn, improve quality and safety outcomes (Lovelace et al., 2016).

Approximately 70% of the TCP population is over the age of 65 years, with two or more chronic conditions, making them ideal candidates for discussions about healthcare preferences. The department consists of three registered nurses, one social worker, and one patient care coordinator, covering seven days per week, all with various case management backgrounds and unique perspectives of the hospital system. The TCP team is led by a nurse manager, a nursing director, and a champion physician, and overseen by the continuum administer, all of who are key stakeholders within this microsystem.

There are many processes for identifying high- and medium-risk patients within the transitional care department. This project will focus on identifying patients who do not have a POLST form, which is a process aimed at improving the percentage of patients who will have a complete and accurate POLST form at the time of discharge. Currently, there is no standard process for completing the POLST form on DNR patients prior to discharge.

The top metrics that matter within this department are inpatient LCP registry, claims and referrals, and TCP dashboard. These metrics are monitored at the regional level and reported monthly. There are also significant financial implications for the medical center if patients are given unwanted treatment due to a lack of documented healthcare preferences. The TCP department is in a unique position to work with the inpatient population to facilitate and properly document healthcare wishes, then provide post-discharge follow-up with these patients.

### **Cost Benefit Analysis**

The DNR No POLST project is significant. Each complete POLST form provides patients and families the tool to protect themselves from costly, unwanted overtreatment. There are significant financial implications for patients who have expressed healthcare preferences; however, these were not followed due to lack of necessary documentation. This is a driving force to create change around the current practices for DNR patients.

Life plan facilitators are trained at a regional level during a 2-day, 16-hour training course. This course prepares facilitators to have these crucial conversations with patients and families, as well as trains them to complete the AHCD and POLST forms. Nurses and medical social workers meet the qualifications to attend regional training. Hourly wage is dependent on discipline. For the purposes of this project, the average hourly wage was calculated as a single dollar amount of \$71.39 per hour, with a cost of \$1,142.24 per facilitator for LCP training. There

are four regionally trained LCP facilitators within the TCP department, with a combined cost of \$4,569 for training.

Without a communications-based discussion led by an LCP facilitator, properly documented wishes, and a complete POLST, patients are at risk of receiving unwanted overtreatment. In one such instance, in Fall 2019, a 63-year-old male, with multiple medical problems, including end-stage renal disease requiring hemodialysis, became unresponsive during the hemodialysis session. Prior goals of care discussion were incomplete, not properly documented by an LCP facilitator, and patient never received a complete POLST form. Emergency medical services were activated, and the patient was intubated on scene and transported to the local emergency department. Upon arrival, it was revealed that patient and spouse, on all six previous admissions, had told the medical team on multiple occasions that they wanted no extensive life-sustaining treatments, and the patient wished to be DNR and do not intubate. This information remained in various physician and clinical notes and was never translated onto a POLST as actionable medical orders. As a result, this patient was given unwanted over treatment in the intensive care unit (ICU). Average cost of an ICU stay is \$3,978 per day. The approximate cost of this patient's 8-day stay was \$31,824. The return on investment (ROI) for this case is \$27,255. See Appendix D for the Cost Benefit Analysis/ROI Table.

#### Intervention

The specific intervention for the DNR No POLST project was implemented as follows (see Appendix E). DNR patients are identified by a regionally trained life plan facilitator by reviewing the hospital census daily, filtering patients with active DNR orders in the electronic medical record (EMR), and then identifying those patients without a POLST scanned into the EMR. The supportive care tab within the EMR keeps record of POLST, statement of

preferences, and AHCD. If a patient is identified to be on the palliative care registry, they would be excluded for the purposes of this project. The admission note from the attending physician is then reviewed for documented conversations regarding code status. Regionally trained life plan facilitators are equipped to have these crucial conversations with patients and families; however, much of the information comes from current physician evaluation, and it is important to have this information at baseline prior to POLST conversations.

The next step involves conversation and permission from the attending physician to assist in POLST completion for designated DNR patients. It is important to remember, this is a physician's order; therefore, a physician needs to sign this form for it to be valid. Collaborating with the current medical team will help this process go smoothly. Notifying the attending physician of the plan to complete the POLST and the need for signature to complete the process is imperative. Approaching the patient and family in an educational manner and discussing key points regarding the importance of having a POLST in place to carry their selected wishes into the community will help with completion, as well. Once the POLST has been signed by patient or designated decision maker and attending physician, it should be immediately scanned into the EMR via Epic Haiku.

The original pink POLST must be returned to the patient, with the recommendation to post the POLST on the refrigerator or kitchen cabinet. The patient and family should be reminded that emergency medical response personnel are trained to look for a POLST in a patient's home setting. Lastly, proper documentation using the smart phrase .lcppolst should be completed under the supportive care tab in the EMR. The POLST process takes about 30 to 45 minutes to complete per patient and is priceless in protecting the patient's wishes. The DNR No POLST project is intended to be ongoing, because as this population continues to age, these

conversations will continue to be important, and the use of certified decision aids is critical for documenting decisions. Through this project, implementation of direct LCP facilitator engagement with hospital-based physicians to complete accurate, quality POLST forms on all hospitalized DNR patients is accomplished.

### **Study of Intervention**

The study of the intervention for the DNR No POLST project was done on a weekly and monthly basis. Each completed POLST is a success in this project. During the weekly transitional care meetings, the LCP team has opportunity to discuss what is and what is not working. The number of DNR patients without POLST and the number of completed POLST forms are documented and compared during these meetings. This constant evaluation is key to success when implementing change within microsystems. Evaluation is intricately tied to all stages of the change process—beginning, middle, and end. Those who are involved in the decision-making process should also be involved in the evaluation (Finkelman, 2016).

During the plan-do-study-act (PDSA) cycle, the study or evaluation step looks at the current data to determine if the plan is working. Results can be compared to those predicted, as well as those of previous performances (Christoff, 2018). This portion of the cycle also includes what has been learned and can promote discussion for what needs to change for the next PDSA cycle to begin.

As the DNR No POLST project is intended to be ongoing, small tests of change are expected to happen at any point. The PDSA cycles for this project focused on chart review, coordination of care with attending physicians, and patient autonomy. Timing of POLST conversation and subsequent POLST completion are key to promote patient autonomy. PDSA cycle five included upload of completed POLST into the patient EMR. Once Epic Haiku was

installed, education focused on proper upload to ensure best quality image in patient EMR. The last two PDSA cycles focused on timing, delivery, and method of handling to ensure POSLT is properly at the next level of care, i.e., within the home setting. Due to the complex nature of the POLST process, 100% success rate is not expected; however, the aim is to reduce the number of DNR patients leaving the hospital without a POLST. Specific measurement strategy for this project can be found in the Project Charter (see Appendix F). Data will be obtained daily from the hospital census in Health Connect, as the goal of the DNR No POLST project is to increase the number of hospitalized DNR patients who have a valid and complete POLST form.

#### Measures

Measures for the DNR No POLST project are aimed at capturing the daily census of DNR patients admitted to the hospital without a POLST in place. The outcome measure for this project is the percent of patients with completed POLST form prior to discharge. The process measures are the drivers for the project, the two process measures that are reviewed include the percent of patients who have a documented DNR conversation with the hospital physician and the percent of patients with a complete and accurate POLST in place. The balancing measure is aimed at evaluating patient engagement and readiness to complete the POLST form. The balancing measure for this project is important as it speaks to the complex nature of LCP and POLST conversations. The DNR No POLST project will be fully implemented within this medical center by August 2020. Specific measures for this project can be found in the Project Charter (see Appendix F).

### **Ethical Considerations**

The POLST form provides a critical platform for end-of-life discussions in which patient preferences can be converted into medical orders and followed during care periods (Pedraza et

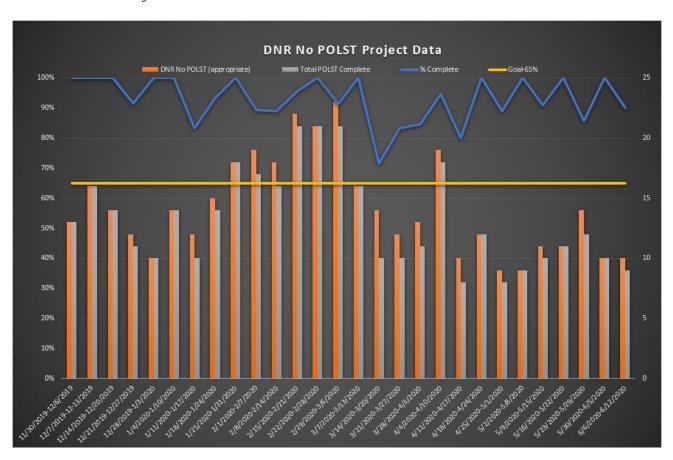
al., 2017). The POLST also serves as an important document to communicate patient preferences when they are unable to do so themselves. Although a high degree of concordance is expected when following the medical orders listed on a POLST form, the POLST form can be overturned by the patient's listed proxy. As Jesus et al. (2014) noted, more than a quarter of elderly residents in the United States require surrogate decision-making. These surrogates frequently make inaccurate, substituted judgements that are not in line with the patient's previously stated and documented wishes. As expected, this can cause substantial ethical dilemmas. Self-determination plays a large role in our basic understanding of ethically appropriate medical care; therefore, it is crucial that any document used to convey patient preferences, such as the POLST form, be as accurate as possible (Jesus et al., 2014). This project was reviewed by the University of San Francisco and was approved as an evidence-based change in practice project; therefore, IRB approval was not required (see Appendix G).

### **Section IV: Results**

The DNR No POLST project has been very successful. Over the last seven months, an average of 92% completion rate of POLST forms on DNR designated patients was maintained. Goal for this project was to increase POLST completion from 40% to 65% by August 2020. There was not previously a process for completing POLST forms on DNR designated patients; therefore, no significant baseline data was available. The current results of this project were above the set 65% in all instances. It is expected this project will continue to produce these exceptional results. See Figure 1 for DNR No POLST project data.

Figure 1

DNR No POLST Project Data



### **Section V: Discussion**

Preparing yourself for a good end of life is not unattainable. As providers, knowing when and where to conduct a skillful, facilitated ACP conversations can make the difference between a good end of life and a tragic one. While ACP and the POLST form provide invaluable tools for documenting patients' wishes, it is understood that those wishes can change as a person's health status declines. There is a definite need to track patient wishes as they evolve over time and recognize the need for ongoing, real-time conversations about goals of care (Hopping-Winn et al., 2017). Numerous studies have highlighted the need for comprehensive, continuous conversations across all care settings. This can undoubtedly ensure patients' preferences about medical care are documented through use of ACP and POLST forms, which then translate to concordant medical care received.

Translating patient treatment preferences into action is no longer just a hypothesis. It is known that patients with advancing disease, who complete proper ACP, are less likely to receive unwanted aggressive care and more likely to retain control over what happens to them at end of life. This includes where they die and what types of treatment they receive (Pedraza et al., 2017). Hospital care quality metrics across the United States show that patient and family satisfaction is greatly increased when autonomy is retained. As the number of aging Americans increases, so does the number of those with advancing disease. This is a critical time to incorporate advance care planning into everyday conversations with patients, which will ultimately facilitate a good end of life and a good death.

### **Lessons Learned**

The DNR No POLST project provides identification and awareness to providers on the importance of the POLST. The project focused on proper documentation of healthcare

preferences and aimed to empower patients through education to complete a POLST. Through this project, higher compliance of DNR patients with complete and accurate POLST forms is expected. Standardizing this process ensured that all patients who designate DNR status will have a valid and complete POLST form at the time of discharge, which will maintain, share, and honor their current healthcare wishes.

The CNL role is designed to fit at the current microsystem level, being a provider and manager of care for patients and cohorts. The CNL role can apply change within microsystems in many ways, utilizing a combination of competencies, as listed by the American Association of Colleges of Nursing (2007). The CNL carries a common goal of decreasing readmissions, improving patient outcomes and to promote smooth transitions across the continuum of care. For this project, the CNL served as the team leader, an advocate, an educator, and a resource during implementation of the DNR No POLST project.

#### Conclusion

The DNR No POLST project has shown significant results. Not only does this project ensure proper documentation of patient preferences regarding code status and medical treatment, it also promotes patients and families to have these crucial conversations with their healthcare providers. The POLST form provides a critical platform for end-of-life discussions in which patient preferences can be converted into medical orders and, therefore, followed during care periods (Pedraza et al., 2017). The POLST also serves as an important document to communicate patient preferences when they are unable to do so themselves. Chart review often reveals a high degree of concordance between care preferences and care received when ACP communication tools are used and documented (Hopping-Winn et al., 2017).

The Institute of Medicine (IOM, 2014) committee believes that a "person-centered, family-oriented approach that honors individual preferences and promotes quality of life through the end of life should be a national priority" (p. 4). The IOM report also highlights the rapidly increasing number of older Americans, many with a combination of frailty, chronic illness, physical and mental disability, and significant functional limitations, which only heightens the need for responsive, patient-centered care (IOM, 2014). It is noted that future policy should focus on a communications-based approach to ACP that emphasizes continuous, meaningful interactions between healthcare providers and patients in order to optimize end-of-life medical care to the individual patient (Vearrier, 2016).

Implementing the DNR No POLST performance improvement project within the transitional care department will have continued support of senior leadership. This is also a hospital-wide initiative supported by the medical center. CNLs are in a unique position to implement change at the unit level because they are working within a microsystem in which they are familiar. Research shows that a CNL's confidence to perform key competencies associated with their current role, within a familiar microsystem, is higher and yields more positive outcomes (Gilmartin, 2014).

The importance of advance care planning, including complete and accurate POLST forms, should become a routine portion of medical care in the United States. Without this, there is risk negating the patient-centered care that healthcare providers have worked so hard to achieve. The DNR No POLST project specifically addresses each of these goals by ensuring real-time conversations, properly documenting healthcare preferences, and potentially avoiding unwanted overtreatment. It is expected this project will increase awareness about the importance of POLST completion to understand and honor patients' medical wishes.

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**Section VII: Appendices** 

# Appendix A. POLST Form

EM	Physician Orders for	the state of the s	The second secon				
	First follow these orders, the Physician/NP/PA. A copy of the si		Patient Last Name:	1	Date Form Prepared:		
E Com	form is a legally valid physician order.	. Any section	Patient First Name:	F	Patient Date of Birth;		
MSA #	not completed implies full treatment for POLST complements an Advance D is not intended to replace that docum	Directive and	Patient Middle Nam	e: 1	Medical Record #: (optional)		
A	CARDIOPULMONARY RESUSCITATION  If patient is NOT in a				and is not breathing in Sections B and C		
heck One	☐ Attempt Resuscitation/CPR (Selecting						
	☐ Do Not Attempt Resuscitation/DNR	(Allow Na	tural Death)				
В	MEDICAL INTERVENTIONS:	If p	atient is found w	ith a puls	e and/or is breathing		
Check One	In addition to treatment described in Sele advanced airway interventions, mechanic Trial Period of Full	ctive Treatme	ent and Comfort-Fo	cused Trea	tment, use intubation,		
	Selective Treatment – goal of treating medical conditions while avoiding burdensome medical treatment described in Comfort-Focused Treatment, use medical treatment, IV antibuted IV fluids as indicated. Do not intubate. May use non-invasive positive airway pressure. Generally a intensive care.						
	Request transfer to  Comfort-Focused Treatment – prim Relieve pain and suffering with medicatio treatment of airway obstruction. Do not us with comfort goal. Request transfer to h	ary goal of n in by any rout se treatments	naximizing comfor e as needed; use of listed in Full and S	xygen, suc elective Tr	tioning, and manual eatment unless consister		
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## **Appendix B. Evaluation Table**

# **PICOT Question:**

In patients who designate themselves do not resuscitate (DNR) status (P), how does completion of a physician orders for life-sustaining treatment (POLST) form (I), compared to no intervention (C), affect overall concordance of end-of-life treatment preferences and wishes (O)?

Study	Design	Sample	Outcome/ Feasibility	Evidence Rating
Hayes et al. (2017)	Cross-sectional	226,101 Oregon POLST registry forms from 2010-2015	Highlights a large number of POLST forms are signed by APRNs. Given the need for timely POLST form completions by a member of the interdisciplinary team who knows the patient wishes best, data supports authorizing APRNs to complete and sign POLST forms. Useful in moving California legislation to allow APRNs to sign POLST forms, in addition to MDs and PAs.	L IIIA
Hopping-Winn et al. (2017)	Retrospective cohort study	300 patients who had participated in Advanced Steps conversations, who died in 2015	Study revealed a high degree of concordance between care preferences and care received. Useful for implementing POLST programs to ensure accurate completion of POLST forms, as well as promoting real-time goals of care conversations.	L IIIA
Lim et al. (2016)	Cochrane Review Systematic reviews of RCTs and quasi-RCTs	Patients with Stage 4 and 5 CKD and ESKD requiring HD, 337 participants from various London hospitals	Evaluates evidence promoting advance care planning for people receiving haemodialysis on a large scale. Useful to identify specific patient populations to implement advance care planning protocol.	L IIA
Pedraza et al. (2017)	Retrospective cohort study	2,159 West Virginians with advanced directives (AD) and/or POLST forms in the	Evaluates the number of patients who had a completed AD and POLST form prior to death at home or death while on hospice service. Odds of being admitted to hospice was almost 3x greater	L IIIA

		West Virginia e- Directive registry, who died as a result of cancer between January 2011- February 2016	when a POLST was completed. Provides evidence on the importance of advance care planning (ACP) conversation and use of designated ACP materials in patients with terminal illness.	
Torke et al. (2018)	Single-arm feasibility study	Enrolled 18 of 31 eligible participants who were community-dwelling adults 65 and older enrolled in a complex care management program	Revealed that POLST facilitation was found useful in frail older adults already enrolled in a complex care management program. Useful in implementing a protocol to capture patients enrolled in specific complex care management programs and provide POLST and ACP information.	L IIB
Vearrier (2016)	Systematic reviews of qualitative research	77 articles were chosen, all of which contained relevant based on review of title and abstract	Emphasizes policy should focus on a communications-based approach to ACP includes ongoing interactions between healthcare providers and patients to optimize end-of-life medical care. Promotes use of communications-based ACP within specific patient populations.	L IIIB
Zive et al. (2019)	Descriptive retrospective study	Oregonians with an active form in the Oregon POLST registry, who died of natural causes, Cohort 1: 2010 and 2011 (58,000) Cohort 2: 2015 and 2016 (65,458)	Highlights substantial increases in time from POLST completion to death between the two cohorts, as well as an increase in the number of decedents with an active POLST in the registry. Useful for implementing early POLST completion protocol to ensure patient treatment preferences are well documented.	L IIIA

# Appendix C. Unit Profile

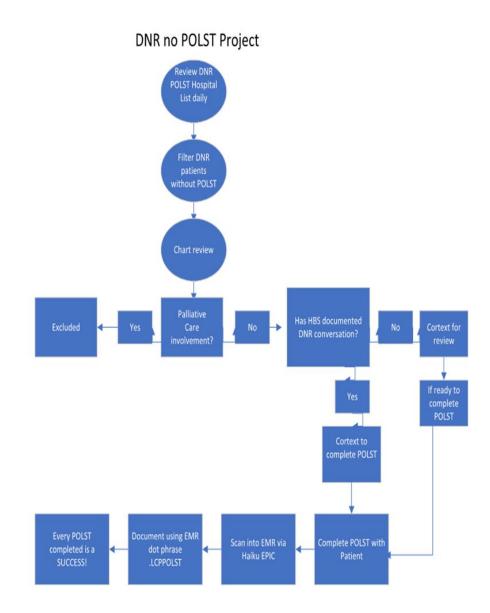
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# Appendix D. Cost Benefit Analysis / ROI

Improvement Goal	Improvement Cost	Revenue Improvement through Cost Avoidance	ROI
Provide complete and accurate POLST to patients designated DNR status to avoid unwanted, overtreatment	Cost of implementing the evidence based DNR No POLST project:	Avoid 1 patient from receiving unwanted, over-treatment:	
	2-day (16 hour) Regional Level Training (\$71.39/hr x16) = \$1,142.24 per facilitator x 4 facilitators in the TCP department = \$4,569	Average cost of 1 day in ICU = \$3,978/day. Average LOS 8 days = \$31,824	\$31,824-\$4,569 = <b>\$27,255</b>

Appendix E. Project Process Map



## **Appendix F. Project Charter**

DNR No POLST Project Charter

**Project Charter:** DNR No POLST Project

**Global Aim**: Increase the number of hospitalized DNR patients who have a valid and complete POLST form.

**Specific Aim**: Increase the number of POLST forms complete on hospitalized patients who are designated DNR status and do not have a POLST, from a baseline of 40% to 65% by August 2020.

### **Background:**

It is standard practice when a patient presents to the emergency department for the physician to ask the patient about their wishes regarding code status. Varying interpretations of do not resuscitate (DNR) by patients, families, and hospital staff impact the process of identifying a patient's code status upon entering the hospital (Pirinea et al., 2016). When healthcare providers have an accurate understanding of the advanced healthcare directive and POLST form, they can properly educate patients and their families. This education increases the chances for patients and families to make informed and appropriate decisions regarding the patient's healthcare preferences (Pirinea et al., 2016). Current research and literature support that due to lack of documented preferences, patients can often receive unwanted over treatment. Paris and Moore (2017) indicated that although one-third of patients preferred DNR status, only 47% of physicians accurately reported these preferences, and nearly half of these patients did not have a written DNR order. Therefore, patients are at risk of receiving unwanted over treatment because they are not given the opportunity to state their preferences and properly document those preferences using a POLST form.

The POLST project aims at translating an individual's wishes for care during serious or chronic illness into medical orders that honor those preferences for medical treatment. According to the Coalition of Compassionate Care California (CCCC, 2020), the POLST is a form that gives serious or chronically ill patients more control over their end-of-life care, including choosing potential medical treatments, extraordinary life-sustaining measures, and cardiopulmonary resuscitation (CPR). Printed on ultra-pink cardstock paper, once signed by both patient and physician, nurse practitioner, or physician assistant, the valid POLST form can prevent unwanted or ineffective treatments, reduce patient and family suffering, and ensure that a patient's wishes are honored (CCCC, 2020).

### **Sponsors**

Chief Nursing Executive	M.G.
Continuum Administrator	G.S.
Continuum Director	D.A.

#### Goals:

The overarching purpose of this project is to reduce unwanted overtreatment by ensuring proper documentation of patient's wishes regarding code status and medical treatment by use of the POLST form. The POLST form plays a key role in protecting patients who cannot speak for themselves during a medical event. The POLST form ensures a patient only receives which and how much medical interventions they choose, which promotes patient autonomy. The POLST form also helps guide families to make medical decisions regarding life sustaining treatments, when the patient is unable to speak for themselves. Adherence to the POLST form also reduces financial cost to patients and the hospital system. Through this charter project, we will be implementing direct LCP facilitator engagement with HBS to complete accurate, quality POLST forms on all hospitalized DNR patients.

The CCCC governs the POLST form throughout California. The goal of the CCCC is to have POLST conversations that are rich in context with each individual patient; use a consistent, standardized form that is recognized across care settings; provide comprehensive education; and promote community collaboration by integrating POLST forms into the community's standard of care (CCCC, 2020).

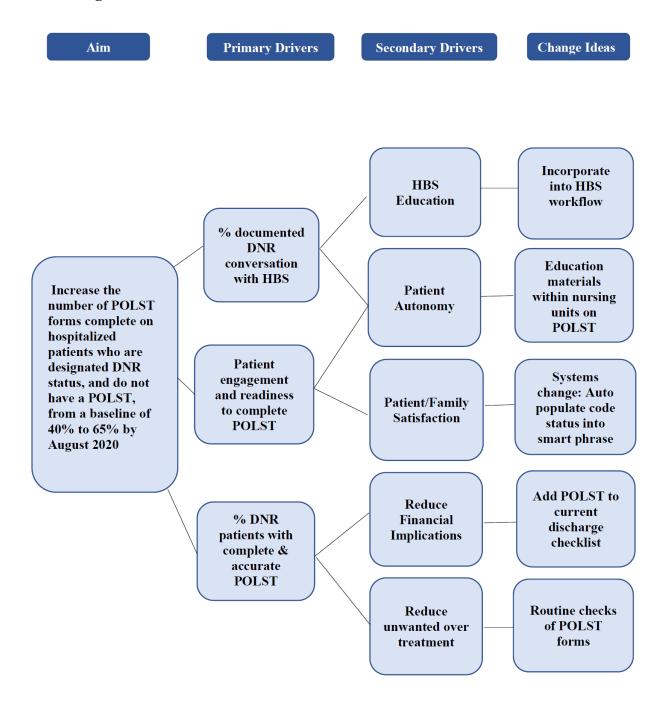
#### **Measures**

Measure	Data Source	Target
Outcome		
% of DNR patients with	Daily Hospital Census in	65%
completed POLST form	Health Connect	
upon discharge		
Process		
% patients who have a	Daily Audits of DNR	100%
documented DNR	Hospital Census in Health	
conversation with HBS	Connect	
% DNR patients with	Daily Audits of DNR	80%
complete and accurate	Hospital Census in Health	
POLST	Connect	
Balancing		
Patient engagement and	Daily Audits of DNR	100%
readiness to complete	Hospital Census in Health	
POLST	Connect	

### **Team**

Project Lead	R.S.
RN Director	D.A.
RN Managers	C.B.
LCP Champions	L.B., W.P., E.M.
Hospital Based Physicians (HBS) Champion	Dr. J.V.
LCP Physician Champions	Dr. E.L, and Dr. U.Z.

### **Driver Diagram**



# **Measurement Strategy**

**Background (Global Aim):** To increase the number of hospitalized DNR patients who have a valid and complete POLST form.

**Population Criteria:** Current hospitalized patients with DNR status designation.

**Data Collection Method:** Data will be obtained daily from the hospital census in Health Connect.

### **Data Definitions:**

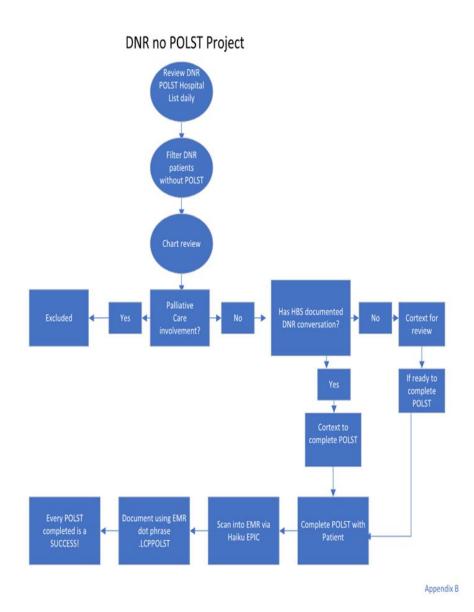
Data Element	Definition
DNR	Do Not Resuscitate
POLST	Physician Orders for Life Sustaining Treatment
Documented DNR conversation with HBS	The physician note documenting DNR status
	conversation in the physician progress note
Complete and accurate POLST	A complete POLST requires a selection in Section
	A and B, as well as a valid signature from the
	physician, including Californian License Number,
	and patient/surrogate signature in Section D.
	POLST form remains valid without a selection in
	Section C.
Patient readiness and engagement	Communication with patient and family regarding
	completion of POLST

**Measure Descriptions:** 

Measure	Measure Description	Data Collection	Goal
		Source	
Hospitalized DNR	N = # of hospitalized	Health Connect	65%
patients without	patients who designate		
POSLT	DNR status and do not		
	have a valid POLST		
Percent of patients	% of patients with	Health Connect	100%
with documented	documented DNR		
DNR conversations	conversation in the		
	physician progress note		
Percent of patients	% of patients who have	Health Connect	80%
with complete and	a complete and accurate		
accurate POLST	POLST scanned into		
	EMR		
Patient engagement	% of patient who are	Health Connect	100%
and readiness to	ready and able to		
complete POLST	complete POLST prior		
during hospitalization	to discharge		

# **Changes to Test**

The LCP facilitators within the Transitional Care Department will be trained on the following workflow:



Weekly team meetings are held to discuss potential for changes and barriers including:

- Time allotment for POLST completion
- Assessing patient readiness for completion
- Quality POLST completion
- Potential for palliative care involvement after identification, i.e., change in patient condition.

# **Project Timeline:**

	01/2020	02/2020	3/2020	4/2020	5/2020	Ongoing
Define the						
Project						
<b>Develop the</b>						
AIM						
Microsystem						
Assessment						
Develop						
Charter						
Create						
Measurement,						
Outcomes,						
Processes,						
and						
Balancing						
Review Literature						
Identify Changes to						
Test						
Driver						
Diagram						
Complete						
Charter						
<b>Evaluation &amp;</b>						
Ongoing						
Performance						
Improvement						

### **Lessons Learned**

The DNR No POLST Project provides identification and awareness to providers on the importance of the POLST, which focuses on properly documenting healthcare preferences, and empowering patients through education to complete a POLST. Through this project, higher compliance of DNR patients with completed POLST forms is expected. Standardizing this process will ensure that all patients who designate DNR status will have a valid and complete POLST form, which will maintain, share, and honor their current wishes.

The DNR No POLST project is significant. Not only does it ensure proper documentation of patient wishes regarding code status and medical treatment, but it also promotes these crucial conversations. This charter will help guide and sustain this project over time, ensuring continued success. CNLs carry a common goal of decreasing readmissions and improving patient outcomes to promote smooth transitions across the continuum of care. The healthcare environment we live in today is dynamic and changing constantly. As CNLs, we need to stay abreast of the changing climate and remain flexible during times of change, starting within our microsystems.

### **CNL Competencies**

The CNL role is designed to fit at the current microsystem level, being a provider and manager of care for patients and cohorts. The CNL role can apply to change within microsystems in many ways, utilizing a combination of competencies, as listed by the American Association of Colleges of Nursing (AACN, 2007). There is evidence to support that organizations are shifting away from conceptualizing the CNL as a formal, unit-based role to conceptualizing the core knowledge associated with CNL practice as a skill set, with application in existing positions and responsibility for clinical quality, safety, and performance improvement (Gilmartin, 2014).

Implementing the performance improvement project DNR No POLST within the Transitional Care Department has the backing of the manager, director, and continuum administrator. For this project, the CNL will serve as the team leader, educator, outcomes manager, and client advocate. This is also a hospital-wide initiative supported by Kaiser Santa Clara. Having a CNL implement change is a unique position because they are working within a microsystem, they are familiar with. Research shows that a CNL's confidence to perform key competencies associated with their current role, within a familiar microsystem, is higher and yields more positive outcomes (Gilmartin, 2014).

### Appendix G. Statement of Determination

# CNL Project: Statement of Non-Research Determination Form Student Name: Reanda Scherson Title of Project: The DNR No POLST Project at Kaiser Santa Clara **Brief Description of Project:** A) Aim Statement: To increase the number of POLST forms complete on hospitalized patients who are designated DNR status, and do not have a POLST, from a baseline of 40% to 65% by August 2020. B) Description of Intervention: LCP facilitators will monitor Daily Inpatient Census and review for DNR patients without a POLST on file. LCP facilitator will assist HBS physician in completing POLST prior to discharge and ensuring patient receives original POLST at time of discharge from inpatient setting. C) How will this intervention change practice? It will ensure patients who designate themselves DNR status, discharge from the hospital with a complete and accurate POLST form to protect their healthcare wishes and prevent unwanted overtreatment. D) Outcome measurements: % of DNR patient with complete POLST form upon discharge

To qualify as an Evidence-based Change in Practice Project, rather than a Research Project, the criteria outlined in federal guidelines will be used: (http://answers.hhs.gov/ohrp/categories/1569)

UNIVERSITY OF	School of Nursing and
SAN FRANCISCO	Health Professions

This project meets the guidelines for an Evidence-based Change in Practice Project as outlined in the Project Checklist (attached). Student may proceed with implementation.

☐ This project involves research with human subjects and must be submitted for IRB approval before project activity can commence.

Comments:

### EVIDENCE-BASED CHANGE OF PRACTICE PROJECT CHECKLIST \*

Instructions: Answer YES or NO to each of the following statements:

Project Title:	YES	NO
The aim of the project is to improve the process or delivery of care with established/ accepted standards, or to implement evidence-based change. There is no intention of using the data for research purposes.	X	
The specific aim is to improve performance on a specific service or program and is a part of usual care. ALL participants will receive standard of care.	X	
The project is <b>NOT</b> designed to follow a research design, e.g., hypothesis testing or group comparison, randomization, control groups, prospective comparison groups, cross-sectional, case control). The project does <b>NOT</b> follow a protocol that overrides clinical decision-making.	X	
The project involves implementation of established and tested quality standards and/or systematic monitoring, assessment or evaluation of the organization to ensure that existing quality standards are being met. The project does NOT develop paradigms or untested methods or new untested standards.	X	
The project involves implementation of care practices and interventions that are consensus-based or evidence-based. The project does <b>NOT</b> seek to test an intervention that is beyond current science and experience.	Х	
The project is conducted by staff where the project will take place and involves staff who are working at an agency that has an agreement with USF SONHP.	X	
The project has NO funding from federal agencies or research-focused organizations and is not receiving funding for implementation research.	X	
The agency or clinical practice unit agrees that this is a project that will be implemented to improve the process or delivery of care, i.e., <b>not</b> a personal research project that is dependent upon the voluntary participation of colleagues, students and/ or patients.	Х	
If there is an intent to, or possibility of publishing your work, you and supervising faculty and the agency oversight committee are comfortable with the following statement in your methods section: "This project was undertaken as an Evidence-based change of practice project at X hospital or agency and as such was not formally supervised by the Institutional Review Board."	Х	

ANSWER KEY: If the answer to ALL of these items is yes, the project can be considered an Evidence-based activity that does NOT meet the definition of research.

IRB review is not required. Keep a copy of this control of these questions is NO, you must submit for ANY of these questions of Elizabeth L. Hohmann.	or IRB approval.
Human Research Committee, Partners Health System	
STUDENT NAME (Please print):  Reanda Sche	rson
Signature of Student: Revolut Scheran	DATE 4/20/2020
SUPERVISING FACULTY MEMBER NAME (F	. ,
	DATE

Approved Faculty signature: Liesel Buchner, MSN, CNL 6/20/2020