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The Quality of Physician Orders
for Life-Sustaining Treatment Decisions:
A Pilot Study

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Abstract

Background: Physician Orders for Life-Sustaining Treatment (POLST) forms are used to document patient treatment preferences as medical orders. Prior research demonstrates that use of POLST alters medical treatments in a way that is consistent with the POLST orders. However, there are minimal data about the quality of POLST decisions, including whether they reflect the current preferences of well-informed patients.

Objective: Evaluate the quality of POLST decisions.

Design: Chart abstraction; interviews.

Subjects: Nursing home residents and healthcare agents of incapacitated nursing home residents (*n* = 28).

Measurements: Characteristics of the POLST conversation were assessed. Brief vignettes were used to assess knowledge about how POLST orders guide medical treatment. Current treatment preferences were elicited and compared with the patient's POLST orders to assess discordance.

Results: A majority (59%) of participants recognized the POLST form. Participants were generally accurate in their knowledge of how POLST orders guide treatment concerning cardiopulmonary resuscitation (CPR) (68%), antibiotics (74%), and artificial nutrition (79%), but less so for medical interventions (50%). Current treatment preferences were initially discordant with one or more POLST orders for 64% (18/28) of participants, but half of these discordances were resolved with further discussion (e.g., participant agreed with the existing order). Discordance by treatment decision was as follows: CPR (7%), level of medical intervention (18%), antibiotics (21%), and artificial nutrition (11%).

Conclusions: Discordance between current preferences and POLST orders is complex. Interventions are needed to support high-quality POLST decisions that are informed and concordant with current preferences.

Keywords: advance directives; bioethics; geriatric palliative care end-of-life; nursing home

Introduction

DECISION QUALITY is an important marker of patient-centered care. High-quality decisions result in medical care that reflects the preferences of well-informed patients.[1] Ensuring high decision quality is particularly important in palliative and end-of-life care because the benefit of treatment options available to patients with advanced disease is often uncertain. As a result, the best choice is heavily dependent on patient preferences rather than clinical considerations.[2,3] The generally accepted best practice is to discuss and document end-of-life treatment preferences well in advance of the need for treatment due to concerns that patients will be unable to participate in decision making about critical decisions when

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the time comes. This can result in a gap of weeks, months, or even years between the discussion and when an advance care plan is acted upon.[4] A fundamental assumption underlying advance care planning is that the information documented reflects informed patient preferences that are stable and applicable when the time comes to activate the advance care plan.[4] Therefore, to evaluate advance care planning decision quality, one must assess both how well informed the patient is and whether existing advance care planning documents reflect current treatment preferences.

The Physician Orders for Life-Sustaining Treatment (POLST) program is an advance care planning tool that is used to document patient treatment preferences as actionable medical orders. It is intended for individuals with advanced chronic progressive illness and frailty, so it is used widely in nursing facilities and hospices.[5–7] The POLST form is completed by a healthcare provider based on a conversation with the patient or surrogate and then signed by a clinician.[8] Several studies have established that POLST orders are associated with the kind of treatments provided to patients near the end of life, including hospitalization and the use of cardiopulmonary resuscitation (CPR).[9]

Only a few small studies have evaluated aspects of POLST decision quality. Exploratory studies have found rates of discordance between current preferences and POLST orders ranging from 9% to 29%,[10–12] but method issues limit the generalizability of study findings.[9] There are no studies evaluating patient or surrogate knowledge about POLST. To assess and develop interventions to improve POLST decision quality, research is needed to determine how well existing POLST orders reflect current, informed treatment preferences and what factors influence concordance between existing orders and current preferences.

An exploratory pilot study was undertaken with nursing facility residents and the legally appointed surrogates of incapacitated residents. The purpose of the pilot was to determine whether there was evidence of a problem related to POLST decision quality and trial methods for assessing key components of POLST decision quality for use in future research.

Methods

Overview

This study was conducted following approval by the Gundersen Health System Institutional Review Board. Data collection occurred at two nursing facilities in La Crosse County, Wisconsin. The Respecting Choices advance care planning facilitation program was developed in this community,[13] but it was not in use at the study facilities during the study time period. The Wisconsin POLST contained orders that address four categories of treatment: CPR, medical interventions, antibiotics, and artificially administered nutrition and hydration. A patient/resident or surrogate signature was optional.

Participants

Potentially eligible participants were individuals who served as POLST decision makers. POLST decision makers were either nursing home residents with decisional capacity or the legally appointed healthcare agents of incapacitated residents. (Note: These healthcare agents will be referred to as surrogates throughout the article.) Residents were considered eligible if he or she had nursing facility length of stay of 45 days or longer and a fully completed POLST form prepared within the prior 12 months. Residents who had completed the POLST form, but later lost decisional capacity, were excluded from the sample because it was not possible to assess current preferences or knowledge. As part of eligibility screening, residents who made four or more errors on the Short Portable Mental Status Questionnaire were excluded.[14] Surrogates were considered eligible if they served as the legal decision maker for residents with a nursing facility length of stay of 45 days or longer and fully completed the POLST form prepared within the prior 12 months by the surrogate.

Procedures

A research assistant (RA) reviewed resident records to identify potentially eligible cases and the potential participant (resident or surrogate) based on the POLST form's discussed with section, noting who was involved in the POLST conversation. Once potentially eligible cases were identified, a staff member at the nursing home was asked to confirm the person was appropriate to approach about participation. To recruit residents, facility staff introduced the RA to the resident. The RA described the study, reviewed the consent form, and requested written consent to participate. Data collection typically occurred immediately following consent. To recruit surrogates, a letter of information signed by the facility administrator was sent to the surrogate along with a copy of a blank POLST form. The RA contacted surrogates by phone, reviewed the letter of information, and requested verbal consent to participate. A data collection appointment was scheduled if the surrogate was unable to participate at the time of the initial phone call.

Data collection

A copy of the resident's current POLST form was made for use by the RA during the interview so she could determine whether the orders documented reflected current preferences elicited during the interview. Interviews were audio recorded to help ensure quality control, identify any potentially problematic questions, and provide information to help better understand participant responses. Following completion of the interview, participants were provided with a $25 gift certificate as a thank-you for their time.

Data collection instruments

Demographics. General demographic information about residents, including gender, race, and age, was abstracted from residents' charts and supplemented during the interview. Demographic information about the surrogates was collected during the interview.

Characteristics of the POLST conversation. Participants were asked about the conversations that led to the generation of a POLST form (Table 1). The length of time since POLST form completion was calculated using the date of the interview and the date the POLST form was signed by a clinician (e.g., physician).

TABLE 1. PHYSICIAN ORDERS FOR LIFE-SUSTAINING TREATMENT CONVERSATION CHARACTERISTICS
AND DECISION-MAKING EXPERIENCES

	Overall	*Residents* (n = 14)	*Surrogates* (n = 14)	p
POLST conversation characteristics				
Recalls discussion about preferences for life-sustaining treatment (% yes)	89 (25)	93 (13)	86 (12)	NS
If recall discussion, where did it occur?				
Nursing facility	44 (11)	21 (4)	58 (7)	
Hospital	16 (4)	21 (4)	0	NS
Other	40 (10)	29 (5)	42 (5)	
Mean number of days elapsed since POLST conversation (±SD)	157 (86)	134 (71)	180 (94)	NS
Remembers talking about POLST (% yes)	50 (14)	36 (5)	64 (9)	NS
Knew POLST was in chart (% yes)	57 (16)	29 (4)	86 (12)	<0.01
Recognizes POLST form (% yes)	59 (16)	50 (7)	69 (9)	NS
If recognize POLST, where do you remember seeing it?				
Nursing facility	56 (9)	42 (3)	66 (6)	
Hospital	19 (3)	29 (2)	11 (1)	NS
Other	25 (4)	29 (2)	22 (2)	
Understands why the resident has a POLST (% yes)	89 (25)	79 (11)	100 (14)	NS
Decision-making experiences				
Preferred level of involvement in decision making				
I decide	29 (8)	21 (3)	36 (5)	NS
Share with doctor	61 (17)	57 (8)	64 (9)	
Doctor decides	11 (3)	21 (3)	0	
Mean decision-making role satisfaction (±SD)	4.6 (0.9)	4.5 (0.7)	4.6 (1.1)	NS
Decisional conflict (±SD)	11.9 (17.7)	19.2 (19.7)	5.0 (12.9)	0.03
Decision satisfaction (±SD)	4.4 (0.5)	4.2 (0.5)	4.5 (0.5)	NS

Values refer to % (*n*) unless otherwise specified.
NS, non significant; POLST, Physician Orders for Life-Sustaining Treatment; SD, standard deviation.

Current POLST treatment preferences. The RA read each section of the POLST form out loud and the participant was then asked to state their treatment preference. Participants were provided with a copy of the form to read along.

Discordance between preferences and orders. When an initial discrepancy between current treatment preferences and existing POLST orders was identified, the RA asked the participant about the discrepancy. Reponses were reviewed and categorized when possible as either concordant or discordant with the order. The RA offered to notify the designated facility contact about discordant orders to update the medical record if needed.

General POLST knowledge. True/false questions about general POLST knowledge were based on surveys from prior studies (Table 3).[7,15]

Specific POLST knowledge. Specific POLST knowledge was assessed using brief vignettes. Participants were asked what type of medical treatment the resident would receive in each vignette based on the existing POLST orders. The current order was read out loud verbatim by the RA. The participant was then asked to select the medical treatment he or she thought was most likely to be provided from multiple choice options. For example, participants were asked, ''What would you expect to happen if you/your loved one developed pneumonia, making it hard to breath?'' The

correct response was dependent on the POLST orders on file for that resident. If the resident had a POLST order for no antibiotics, then the correct answer would be ''get medications to help breathing and maintain comfort, but no antibiotics.'' Responses of ''I don't know'' were counted as inaccurate.[16]

Preferences for involvement in the decision-making process. A modified version of the *Control Preferences Scale* was used to assess resident and surrogate preferences for involvement in treatment decision making.[17,18]

Decision-making role satisfaction. Participants were asked to rate their *actual* role in the treatment decision-making process and their satisfaction with their actual involvement on a six-point Likert scale of 0 (very unsatisfied) to 5 (extremely satisfied).[19]

Decisional conflict. The Decisional Conflict Scale assesses the level of uncertainty regarding a healthcare decision.[20] Participants were asked to think about their preferences for medical care on the POLST form. Scores range from 0 (no decisional conflict) to 100 (extremely high decisional conflict). Scale reliability is high with an alpha coefficient of 0.96.

Decision satisfaction. The Satisfaction with Decision Scale is designed to assess satisfaction with the decision-making process.[21] Participants were instructed to answer the

questions based on how satisfied they were with the decisions made about the POLST form. Each item is scored on a scale of 1 to 5 with higher scores representing higher satisfaction. The scale is scored by calculating the mean of six items. Scale reliability is high with an alpha coefficient of 0.86.[21]

Data analysis

Data were analyzed using SPSS. Descriptive statistics were used, including frequencies and means. Percent agreement was used to calculate the rate of concordance between expressed POLST treatment preferences and POLST orders.[1] Responses to questions about initial discrepancies between current POLST treatment preferences and existing POLST orders were transcribed verbatim. Every interview was reviewed and coded by the RA and principal investigator (S.H.) and coding differences, if found, were adjudicated by mutual agreement. Orders were considered discordant when the participant maintained a preference for a different order than was documented or when the participant expressed no preference and an order for a treatment limitation was recorded. *t* Tests and chi-square were used to compare groups.

Results

Participants

A review of 353 charts resulted in the identification of 84 potentially eligible cases. Most exclusions were due to POLST form completed more than a year earlier or forms with orders in only one or two sections. From this group, 24 cases were excluded for the following reasons: the resident was discharged before he or she could be approached about participating ($n = 12$), the resident died ($n = 10$), and the resident had signed the POLST form on file, but had subsequently lost decisional capacity ($n = 2$). Facility staff also requested the RA omit five cases due to concerns, including a recent health problem, a death in the family, and personality issues. Of the remaining 55 eligible cases, 69% (18/26) of residents and 48% (14/29) of surrogates agreed to participate. Interviews were discontinued with four residents due to a lack of interest in the topic ($n = 2$) and concerns about cognition ($n = 2$). The final sample consisted of 28 participants (14 residents and 14 surrogates) or 51% (28/55) of eligible participants. All participating residents and surrogates were Caucasian (100%) and most were female (75%). Residents were an average of 85.6 years (±9.2) and surrogates were an average of 60.4 years (±10.9). A majority of surrogates (89%) were the adult child of the resident.

Characteristics of the POLST conversation

Most participants (93% of residents and 86% of surrogates) recalled talking with someone about preferences for life-sustaining treatment. Recollections of POLST discussions were reported by 36% of residents and 64% of surrogates ($p = NS$). Residents were less likely than surrogates to know there was a POLST form in the medical chart [29% vs. 86%, χ^2 (1, $n = 28$) = 9.3, $p < 0.01$]. More than half of participants (59% of residents and 50% of surrogates) recognized the POLST (Table 1).

Discordance between existing POLST orders and current treatment preferences

Existing orders and current treatment preferences. Table 2 provides information about the existing POLST order and current treatment preferences. A minority of participants were undecided or expressed no preferences about CPR (7%), medical interventions (18%), antibiotics (14%), and feeding tubes (21%).

Discordance determinations. Initially, 79% of residents and 50% of surrogates expressed preferences that appeared discrepant with existing POLST orders [χ^2 (1, $n = 28$) = 2.5, $p = 0.24$]. Participant explanations for the apparent discrepancies included a lack of knowledge, a lack of clarity concerning preferences, initial confusion about what was being discussed, and a lack of interest in the decisions. There were no disagreements between coders for these explanations and, thus, inter-rated reliability was 100%. After discussion about the reason for the discrepancy, it was determined that preferences and one or more POLST orders were discordant for equal numbers of residents (29%) and surrogates (29%) [χ^2 (1, $n = 28$) = 0.00, $p = 1.0$]. Only 8/18 (44%) accepted the offer to review the initial discrepancy with a facility staff member. Overall discordance between current treatment preferences and existing POLST orders was lowest for resuscitation (7%), followed by feeding tubes (11%), medical interventions (18%), and antibiotics (21%) (Table 2).

TABLE 2. DISCORDANCE BETWEEN EXISTING PHYSICIAN ORDERS FOR LIFE-SUSTAINING TREATMENT ORDERS AND CURRENT TREATMENT PREFERENCES

Existing POLST order[a]	Discordance by order, n (%)	Final overall discordance by section, n (%)
Cardiopulmonary resuscitation		2/28 (7)
Full code ($n = 2$)	1/2 (50)	
Do not resuscitate ($n = 26$)	1/26 (4)	
Medical interventions		5/28 (18)
Comfort care ($n = 11$)	2/11 (18)	
Limited additional interventions ($n = 15$)	3/15 (20)	
Full treatment ($n = 2$)	0/2 (0)	
Antibiotics		6/28 (21)
Antibiotics for comfort only ($n = 5$)	1/5 (20)	
No IM/IV antibiotics ($n = 8$)	3/8 (38)	
Aggressive antibiotics ($n = 15$)	2/15 (13)	
Artificial nutrition and hydration		3/28 (11)
No artificial nutrition and hydration ($n = 14$)	1/14 (7)	
Limited trial ($n = 13$)	2/13 (15)	
Long-term artificial nutrition and hydration ($n = 1$)	0/1 (0)	

[a]Based on the Wisconsin POLST form in use at the time of the study. IM/IV, intramuscular/intravenous; POLST, Physician Orders for Life-Sustaining Treatment.

Knowledge about the POLST form and orders

General knowledge about the POLST form. Participants' general knowledge about the POLST form was largely accurate. A majority of residents (89%) and surrogates (100%) understood that the POLST form was voluntary (p = NS). Similarly, a majority of residents (89%) and surrogates (86%) knew that the POLST should be reviewed when the resident's medical condition changes (p = NS). Residents were less likely than surrogates to know that the POLST form can be changed once it is signed [43% vs. 93%, χ^2 (1, n = 28) = 8.0, p < 0.01] (Table 3).

Specific knowledge about POLST orders. Participants' specific knowledge about the likely outcomes of existing POLST orders in the residents' record was variable. Knowledge was least accurate for Section B orders about the use of medical interventions to assist breathing (50% correct) and most accurate in response to questions about Section D orders and the use of feeding tubes (79% correct). Surrogates were more knowledgeable than residents about how specific POLST orders would guide decisions regarding resuscitation [43% vs. 93%, χ^2 (1, n = 28) = 8.0, p = 0.02] and medical interventions to assist breathing [29% vs. 71%, χ^2 (1, n = 28) = 5.1, p = 0.02]. There were no significant differences between residents and surrogates' specific knowledge about antibiotics and feeding tubes (Table 3).

POLST decision-making experience

Preferences for involvement and satisfaction with the decision-making process. More than half of all participants (61%) expressed a preference to share decision making with the physician and 29% indicated a preference to make the final decision themselves. On average, participants were satisfied with their actual role in the POLST decision-making process. There were no differences between residents and surrogates on these items (Table 1).

Decisional conflict and decision satisfaction. In general, decisional conflict was low and decision satisfaction was high (Table 1). Although decisional conflict scores were low, residents reported relatively higher levels of decisional conflict than surrogates [19.2 (19.7) vs. 5.0 (12.9), t (26) = 5.3, p = 0.03]. There were no differences between residents and surrogates on the decision satisfaction scale. In comparison with participants with concordant orders, participants with discordant orders reported relatively higher levels of decisional conflict [16.5 (19.9) vs. 4.0 (9.7), t (24) = 2.2, p = 0.04] and relatively lower levels of decision satisfaction [4.2 (0.5) vs. 4.7 (0.4), t (26) = 2.5, p = 0.02] than participants with concordant orders.

Discussion

The results of this exploratory study evaluating POLST decision quality suggest that there may be room for improvement. Discordance between POLST orders and current treatment preferences was observed in a minority of cases and resident/surrogate knowledge about how orders affect treatments was variable. Discordance between current treatment preferences and existing POLST orders was lowest for decisions about CBR status and highest for decisions about antibiotics. The overall low rate of discordance between preferences and orders for CPR is important as CPR is

TABLE 3. RESIDENT AND SURROGATE GENERAL AND SPECIFIC KNOWLEDGE
ABOUT THE PHYSICIAN ORDERS FOR LIFE-SUSTAINING TREATMENT FORM

	% correct			
	All	*Residents* (n = 14)	*Surrogates* (n = 14)	p
General POLST knowledge				
POLST form cannot be changed once it is signed (FALSE)	68	43	93	<0.01
POLST form is voluntary (TRUE)	89	100	79	NS
POLST should be reviewed when medical condition changes (TRUE)	89	86	93	NS
POLST form is a physician order (TRUE)	64	50	79	NS
Specific POLST knowledge				
Section A				
What do you think would happen if you/your loved one stopped breathing and had no pulse?	68	43	93	0.02
Section B				
What do you think would happen if you/your loved one had trouble breathing?	50	29	71	0.02
Section C				
What do you think would happen if you/your loved one developed pneumonia?[a]	74	85	64	NS
Section D				
What do you think would happen if you/your loved one had problems eating and weight loss?	79	71	86	NS

Incorrect responses included responses indicating the participant did not know the answer to the question.
[a]Sample size for Section C-specific knowledge is n = 27.

attempted in an emergency when it is not possible to re-evaluate preferences. In contrast, decisions about antibiotics are less likely to be made in an emergency context, providing an opportunity to further discuss treatment preferences.

If future research supports these preliminary findings of discordance between existing POLST orders and current preferences, it may suggest a problem with the initial POLST conversation, systems issues in documenting outcomes, and/or the need for more frequent reevaluation of advance care planning documents such as POLST. Participants with discordant orders did report slightly higher levels of decisional conflict and lower decision satisfaction than participants with concordant orders, although overall decisional conflict was low and decision satisfaction was high. Interestingly, participants with an initial discrepancy between treatment preferences and POLST orders declined the opportunity to discuss the discrepancy with a facility staff member more than half the time and instead altered their preferences to match the existing documentation. These changes were either because they recalled the reason for the original order or they did not have a strong preference. Responses suggest both the need for discussions about preferences that include an exploration of goals and values and the reality that for some individuals, treatment preferences may not be deeply held or that these decisions simply are not as important to some residents as assumed.[22] Study findings raise questions about what an acceptable error rate is in the field of advance care planning and what is a feasible target. Research suggests that rates of discordance or inaccuracy in the documentation of older adult treatment preferences are higher than 70% in the hospital setting,[23] which is clearly too high.

Participants exhibited accurate general knowledge about POLST, but specific knowledge about how POLST orders would likely guide the resident's treatment plan was mixed. It is notable that residents were less likely to understand specific information about how POLST orders for resuscitation and medical interventions would be used to guide treatment than surrogates. It is possible these residents understood the orders at the time the form was prepared, but could not spontaneously recall the details. Research on informed consent more generally suggests that recall degrades over time.[24] It is also possible that the residents had undetected cognitive impairment either at the time the form was prepared or at the time of the study, despite screening efforts. Although the forms were marked as being based on a discussion with the resident or surrogate, only half the participants remembered discussing the POLST form orders. It is reassuring that almost all recalled discussions about life-sustaining treatments, which may (or may not) have been at the time of POLST form preparation. These kinds of discussions are an important opportunity to provide basic education about life-sustaining treatment decisions and an evaluation of personal values in advance of a crisis, facilitating informed in-the-moment decision making.[25]

Limitations. Instances of discordance between preferences and POLST orders may not necessarily reflect the quality of the initial advance care planning conversation. Study data relied on recall and self-report, and the amount of time that has elapsed since the initial conversation may increase discordance due to a variety of factors, including possible cognitive decline.[26–28] Live observations or re-cordings of POLST discussions could potentially provide richer data about best practices and make it possible to evaluate the quality of the decision at the time of the original POLST conversation, including how well key information is understood. Additionally, the use of an interview tool developed for research purposes may result in a change in expressed preferences due to the variability in approaches rather than a change in preferences. A lack of standardization of the POLST conversation makes it difficult to replicate the original process by which the form was completed and identify how facilitator training affects outcomes. Replicating the process used to complete the POLST initially, however, is also problematic if the original conversation was of poor quality. An alternative would be to solicit preferences using a standardized interview and then repeat the interview at a later date, but this approach would diminish the generalizability of findings as it would not permit assessment of the outcomes associated with practice variations in the real-world setting.

Other limitations include a relatively small sample of 28 POLST decision makers collected at two nursing facilities in a homogeneous community where advance care planning is widespread, limiting generalizability.[29] Moreover, the assessment of knowledge focused on understanding of how orders would be used to guide treatments. Other relevant knowledge includes specific information about the resident's disease, the risks and benefits of choices, and the urgency of treatment decisions.[16] In this study, characteristics of the facilitator, including training and profession, were not assessed, although research suggests that inadequate healthcare provider training about POLST is a challenge.[9] Exploration of these factors and their relationship to discordance may help identify how best to maximize POLST decision quality. Finally, there is no information available about the rate of discordance between advance care planning documentation and current treatment preferences in a non-POLST-using sample. It is unknown whether the rate of discordance with POLST is lower, the same, or higher than the rate of discordance between preferences and documentation in non-POLST-using populations.

Directions for the future

The results of this exploratory study were used to inform the development of a larger study designed to evaluate the quality of POLST decisions in the nursing facility (NIH NR015255). This study will be conducted using a representative sample of nursing home residents and surrogates from nursing facilities in Indiana. To address the methodological challenges associated with eliciting preferences, the evidenced-based Respecting Choices Last Steps® facilitator model[13] will be used to elicit current value-based preferences that will be compared with the standing POLST orders on file in the facility. This model fits into our conceptual framework for values clarification that we hypothesize will lead to quality POLST conversations. Some of the POLST forms will have been completed using the Last Steps interview and this will be considered in the analysis. Analyses will also account for the time elapsed since the original conversation. Through stakeholder input, a more robust knowledge assessment tool is being developed to assess how informed residents and surrogates are about POLST decisions. Other

variables to be considered include characteristics of the resident, surrogate, facilitator, and conversation (e.g., location). Reasons for discordance will be explored through qualitative interviews to expand understanding of the many possible reasons for discordance beyond a change in preference/preference instability. This pilot study suggests that discussion is important in both identifying true discordance and understanding the reasons for preferences that initially appear to be discordant. It is anticipated that this study will yield data that can be used to guide the development of interventions, inform practice improvements, and shape policy through the identification of potentially modifiable factors associated with POLST discordance.

Conclusion

The results of this small pilot study of 28 POLST decision makers in two nursing facilities suggest that discordance between current preferences and standing orders on POLST may be potentially problematic. General knowledge about POLST was high, but specific knowledge about how POLST orders are used to guide care was lower, raising questions about how well nursing home residents and surrogates understand the decisions recorded on the POLST form. Improved measures, currently being developed through an R01 grant, are needed to assess knowledge, identify current preferences, and explore discordance. Future research is in progress to determine whether these findings hold in a larger randomly sampled population of nursing home residents when taking key resident, decision maker, conversation, and facilitator characteristics into consideration.

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