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Use of the Physician Orders for Scope of Treatment Program in Indiana Nursing Homes

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OBJECTIVES: To assess the use of the Indiana Physician Orders for Scope of Treatment (POST) form to record nursing home (NH) resident treatment preferences and associated practices.
DESIGN: Survey.
SETTING: Indiana NHs.
PARTICIPANTS: Staff responsible for advance care planning in 535 NHs.
MEASUREMENTS: Survey about use of the Indiana POST, related policies, and educational activities.
METHODS: NHs were contacted by telephone or email. Nonresponders were sent a brief postcard survey.
RESULTS: Ninety-one percent (n=486) of Indiana NHs participated, and 79% had experience with POST. Of the 65% of NHs that complete POST with residents, 46% reported that half or more residents had a POST form. POST was most often completed at the time of admission (68%). Only 52% of participants were aware of an existing facility policy regarding use of POST; 80% reported general staff education on POST. In the 172 NHs not using POST, reasons for not using it included unfamiliarity with the tool (23%) and lack of facility policies (21%).
CONCLUSION: Almost 3 years after a grassroots campaign to introduce the voluntary Indiana POST program, a majority of NHs were using POST to support resident care. Areas for improvement include creating policies on POST for all NHs, training staff on POST conversations, and considering processes that may enhance the POST conversation, such as finding an optimal time to engage in conversations about treatment preferences other than a potentially rushed admission process. **J Am Geriatr Soc 66:1096–1100, 2018.**

Key words: nursing home; advance care planning; palliative care

The 2014 Institute of Medicine report *Dying in America* identified the need for enhanced communication to ensure that individual preferences are known and honored as part of the quest to improve care at the end of life. Recommendations included encouraging states to adopt the Physician Orders for Life-Sustaining Treatment (POLST) model established by the National POLST Paradigm.[1] The POLST form is used to document treatment preferences regarding cardiopulmonary resuscitation and other medical interventions as actionable medical orders. It is widely used in nursing homes (NHs) and frequently used to document preferences for enhanced focus on comfort. Individuals with POLST forms receive treatments that are largely consistent with their orders, and healthcare providers and emergency medical responders view the forms as helpful.[2]

Most states now have programs based on the POLST model in development or actively running.[3] The POLST program began in the mid-1990s in Oregon, and by 2004, 71% of NHs were using POLST for at least half of all residents.[4] Oregon implementation activities have been ongoing for longer than 20 years with the support of private philanthropy and state funding. This work has been part of an overall focus on improving end-of-life care after votes to legalize physician assisted suicide.[5] A 2012 study of the California POLST evaluated a systematic implementation strategy funded by the California Health Care Foundation. A coordinated plan was

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created to implement the California POLST program regionally through community coalitions. Surveys of a subset of NHs found that 81% of NHs had completed a POLST with a resident less than 2 years after implementation.[6] However, most states lack resources to support program development and rely on unfunded grassroots approaches and volunteers for outreach and education.[7]

Indiana followed this grassroots approach.[8] The Indiana Patient Preferences Coalition (IPPC) was officially formed in September 2010 to develop an Indiana version of POLST. Clinical (e.g., physicians, nurses, emergency responders, social work, ethicists), community (e.g. aging services, health systems), and legislative (e.g. governmental affairs, trade associations, lawyers) committees were formed to organize the work of more than 70 volunteer members. Legislation was necessary to authorize an alternative to the existing statutorily specified out-of-hospital do-not-resuscitate order form and direct the creation of a new form.[9] The coalition met quarterly, and members developed a draft form, revised draft legislation, and created educational materials. Legislation was first introduced in 2012 and resubmitted in 2013 to create the Indiana version of POLST, called the Physicians Orders for Scope of Treatment (POST). Support was secured from 25 professional organizations, and there was no opposing testimony. House Bill 1182 passed in the Indiana Senate (48 to 1) and House (98 to 0) with bipartisan sponsorship in both chambers. The governor signed it into law (Indiana Code 16–36–6), and the Indiana POST form became available from the Indiana State Department of Health on July 1, 2013.[8]

Once the law passed, implementation efforts began without a source of funding. IPPC stakeholders disseminated information about POST through existing mechanisms, including newsletters, conferences, meetings, grand rounds, and other educational sessions. Model hospital and long-term care policies were developed in collaboration with industry trade groups and clinicians. Additional educational materials were adapted with permission from other state programs or created and posted on a donated website that a volunteer created.[10] Finally, collaboration with NH partners and advisory board members affiliated with a Centers for Medicare and Medicaid Services (CMS) demonstration project that included advance care planning (ACP) as a core intervention enhanced dissemination.[11,12] The National POLST Paradigm endorsed the Indiana POST program in May 2017.

A telephone survey about POST use in Indiana NHs was conducted in 2016 as part of an on-going study funded by the National Institute of Nursing Research (NR015255) to increase knowledge about POLST conversations and decisions. Although the primary goal of the survey was to identify NHs that use POST to approach about on-site data collection for the primary study, it also provided an opportunity to gauge dissemination of POST in NHs throughout the state of Indiana 3 years into an unfunded, grassroots implementation effort.

METHODS

The study was conducted in Indiana between April and June 2016 after approval by the Indiana University Institutional Review Board.

Study Sample

The study sample consisted of all licensed NHs in the state of Indiana (N = 535). The person that the facility identified as primarily responsible for ACP provided data, a strategy used successfully in several prior studies.[4,13,14]

Procedures

NH executive directors were sent a letter introducing the survey with the chance to opt out of participation. If no opt-out call or e-mail was received within 2 weeks, the facility was contacted by telephone. The research assistant asked to speak with the person primarily responsible for ACP and invited him or her to participate in a brief telephone survey about ACP at their NH. If it was not possible to reach the appropriate person by telephone, facility administrators were e-mailed a link to an online version of the same survey with a request that the staff member primarily responsible for ACP complete it. Remaining non-responding NHs were mailed a postcard containing an abbreviated version of the survey solely to assess POST use.

Data Collection Tools

The telephone and email survey were based on an existing survey,[6] tailored for use in Indiana. If the NH contact person indicated the NH did not use POST, information was requested about the reason for non-use. If POST was used (e.g., complete POST with residents or admit residents with POST), participants were asked additional questions about the percent of residents with a POST form, form availability and storage, the role of the person primarily responsible for helping residents and surrogates complete POST, and the types of education provided within the facility. The brief postcard survey included questions to ascertain whether POST was generated after admission to the NH and the estimated proportion of residents with POST forms.

NH information including location (urban versus rural), bed size, and racial composition were extracted from Minimum Data Set 3.0 data that was purchased from CMS through a data use agreement. Ownership status and Medicare quality star ratings were found online.[15]

Data Analysis

Statistical calculations and hypothesis tests were performed using SAS version 9.4 (SAS Institute, Inc., Cary, NC). Chi-square tests and t-tests were used to compare NHs that offer the POST form to residents after admission with NHs that do not offer the POST form to residents and to compare NHs that participated in the survey with those that did not. Descriptive variables used in these comparisons included NH size (total bed capacity, number of skilled beds), location (rural vs urban), racial composition (percentage minority), ownership status (nonprofit, for profit, government), and the Medicare Five-Star Quality Rating System (staffing, quality measures).[15]

Table 1. Physician Orders for Scope of Treatment (POST) Use in Indiana Nursing Homes (NH)

POST Use	n (%)
Experience with POST (n = 486)[a]	
NH admitted resident with POST form	247 (50.8)
NH completed a POST form for resident after admission	315 (64.8)
NH never admitted resident with POST form or completed POST form with resident	101 (20.8)
Estimated number of residents with POST forms in NHs that complete POST with residents (n = 315)[a]	
A few	87 (27.6)
Fewer than half	74 (23.5)
Approximately half	20 (6.4)
More than half	48 (15.2)
All or nearly all	78 (24.8)
Unknown, missing	8 (2.5)
Reasons do not complete POST with residents (n = 172)[b,c]	
Never heard of, unfamiliar	43 (25.0)
Facility policy	42 (24.4)
Don't know	25 (14.5)
Believe not useful for their population	14 (8.1)
Not used in community	11 (6.4)
Lack of staff training	7 (4.0)
Physician or hospital should initiate	6 (3.5)
Planning to implement use	5 (2.9)
Objection to POST form	4 (2.3)
Too complicated	3 (1.7)
Other (e.g., POST form not required by facility, participant did not specify)	12(7.0)

[a]Based on responses to telephone, e-mail, and brief postcard surveys.
[b]Based on responses to telephone and e-mail surveys only.
[c]Participants able to select more than one reason.

Table 2. Characteristics of Telephone Survey Only and Chart Review Validation Sample Nursing Homes (NHs)

NH Characteristic	Telehone Survey–Only NHs, n = 300	Validation NHs, n = 15	P-Value
Minority residents, %[a]			.49
A few or none	70.5	60.0	
Less than half	21.0	26.7	
Approximately half	3.0	6.7	
More than half	3.7	6.6%	
All or nearly all	0.7	0	
Urban, %	32.9	20.0	.40
Nonprofit, %	39.3	62.5	.27
Number of beds, mean	119	137	.31
Number of skilled beds, mean	101	122	.06
Star rating, n			.18
1	43	0	
2	57	1	
3	45	3	
4	60	6	
5	81	5	

Includes only NHs that reported completing POST forms with residents.
[a]Numbers vary because not all participants provided a response to this question.

RESULTS

Facility and Participant Characteristics

Ninety-one percent (486/535) of Indiana NHs participated in the study. There were no statistically significant differences between participating and nonparticipating NHs with respect to location (urban or rural), bed size, ownership (nonprofit, for profit, government), or Medicare quality star ratings. Data were collected primarily over the telephone (413), with additional responses received by e-mail (40), for a total of 453 completed full surveys. Of NHs that did not complete a survey over the telephone or e-mail, 33 returned the short postcard survey of POST use, resulting in data about use for 486 NHs. The staff identified as responsible for ACP who provided facility data over the telephone or e-mail self-identified as nurses (n=193, 42.6%), social service staff (n=160, 35.3%), administrators (n=36, 7.9%), or "other," such as admissions clerk (n=64, 14.1%).

Use of POST

Two hundred forty-seven (50.8%) participants said the NH had admitted a resident with a POST form that had been completed elsewhere, and 315 (64.8%) reported that the NH had completed a POST form for a resident at some point after admission. Of NHs that completed POST forms with residents, 46.3% reported it was used for half or more of all residents, including 24.8% who reported that POST forms were used for all or nearly all residents (See Table 1). To assess whether these reports represented an overestimate of use, telephone survey reports of use were compared with chart review data at 15 facilities randomly selected for participation in the parent study. In the telephone survey, these NHs reported that 66.7% of residents had a POST form. In the chart review conducted up to 1 year later, 73.3% of residents had a POST form (95% confidence interval, 44.9–92.2%), and there were no differences in characteristics between the subsample of NHs with chart validation and those contacted by telephone only (Table 2).

Overall, 20.8% (101/486) of participants reported that their NHs had no POST experience, meaning that they had never admitted a resident with a POST form or completed a POST form with a resident. Data from responses to the telephone and e-mail survey (n = 453) indicate that, in facilities that only admit residents with POST or have no experience with POST (n = 172), the primary reasons for non-use include never having heard of or being unfamiliar with POST (25.0%), NH policy (24.4%), do not know why NH does not use POST (14.5%), believe form is not useful or necessary because of the presence of other ACP forms (8.1%), POST is not used in the community (6.4%), lack of staff training (4.0%), believe physician or hospital should initiate (3.5%), and facility was planning to implement (2.9%).

NHs in 86 of 92 (93.4%) counties in Indiana reported POST use, with 63% (n=58) reporting POST use for half or more of their residents. Comparisons of NHs that did and did not use POST revealed that those that use POST had a larger average bed size than those that did not ($t = 3.64$, $p<.001$). All other statistical tests of differences

Table 3. Physician Orders for Scope of Treatment (POST) Procedures and Practices in Nursing Homes (NHs) with POST Experience

POST Procedures and Practices	n (%)
NH staff received POST education, yes	272 (80.2)
Number of staff who received POST education	
A few	45 (16.6)
Fewer than half	30 (11.0)
Approximately half	37 (13.6)
More than half	48 (17.7)
All or nearly all	100 (36.8)
Type of education[a]	
General information	255 (93.8)
Teaching about having the POST conversation	52 (19.1)
Distribution of written materials	19 (7.0)
Respecting Choices Last Steps Training	12 (4.4)
Role play or case discussion about POST	5 (1.8)
Video	1 (0.4)
In facilities that complete POST with residents, when is POST form typically introduced to residents and families? (n = 285)	
At time of admission	195 (68.4)
With decline or change in status only	42 (14.7)
Other (e.g., participant did not specify)	14 (4.9)
Care plan conference only	11 (3.9)
Multiple points (e.g., decline, care plan, admission)	8 (2.8)
When physician decides it is time	7 (2.4)
Resident or family request	4 (1.4)
When resident becomes long-stay resident	3 (1.0)
Don't know	1 (.04)
Written POST policy[b]	
Yes	175 (51.9)
No	89 (26.4)
Don't know	73 (21.7)
Blank POST forms available in NH	303 (89.4)
Specific place in medical record for POST	327 (96.5)
In NHs with electronic health record, POST form stored in electronic health record	140 (49.8)

Based on responses to telephone and e-mail survey (n = 339).
[a]Participants able to select more than one response.
[b]Sample size varies because of missing data.

between NHs that did and did not use POST were nonsignificant, including comparisons based on urban versus rural location; percentage of minority residents; nonprofit versus for-profit status; and CMS Star Ratings for overall, quality, and staffing.

POST Education and Procedures in NHs with POST Experience

Telephone and e-mail survey participants who completed POST with residents (n = 286) reported that POST is typically introduced on admission (68.4%), when the resident experiences a decline in health (14.7%), or at regularly scheduled care plan conferences (3.9%). Some NHs (2.8%) reported introducing the form at multiple points (e.g., decline in condition, at care plan meetings). A majority of participants with POST experience report that staff had received some type of education about POST (80.2% or 272/339). The education provided took many forms and often included more than one strategy, including general information (93.8%), education about having the POST conversation (19.1%), distribution of written materials (7%), Respecting Choices Last Steps[16] training (4.4%), role play or case-based discussions (1.8%), and video (0.4%). Participant estimates of the number of staff who had received POST education varied as follows: a few or none (16.6%), less than half (11.1%), approximately half (13.7%), more than half (17.7%), and all or nearly all (36.9%). A majority of NHs with POST experience have blank POST forms available (n=303, 89.4%) and a specific location for storing POST forms in the medical record (n=327, 96.5%), although only 175 (51.9%) participants reported that there was a written POST policy in their facility (see Table 3).

DISCUSSION

Our findings suggest widespread use of POST in Indiana NHs within 3 years of the passage of the law creating the Indiana POST program. Approximately 80% of all Indiana NHs reported admitting a resident with a POST form or completing POST for residents after admission, with 46% reporting use by half or more of all residents. This level of use is surprising given the scant resources available to support implementation. Outreach efforts were conducted primarily through collaboration with stakeholder organizations involved in the development of the law starting in 2010, along with the donated time of IPPC members, supportive clinicians, and attorneys.[8] A strategy that included adaptation of educational materials (with permission) that other POLST-using states developed, regular coalition meetings, collaboration with the Indiana State Department of Health, and formation of small workgroups to complete focused projects assisted this effort. A CMS demonstration project, Optimizing Patient Transfers, Impacting Medical quality and Improving Symptoms: Transforming Institutional Care, may also have boosted these efforts.[11,12] Recent revisions to the form included a round of outreach focused on education to call attention to the changes and new state-developed education tools to support appropriate use.[17]

One-quarter of participants reported that all or nearly all of the residents in the NH had a POST form. The very high rates of POST use reported in these NHs are unexpected. The high use in some settings suggests that some NHs may be using POST to document code status only, although the POST form should ideally address the broader plan of care. Finally, although it is possible that participants overestimated use, subsequent follow-up with buildings for on-site data collection suggest that the telephone survey estimates of use were accurate or even underestimated use.

The process of POST completion and the quality of POST conversations warrant further investigation. High-quality counseling for POST involves exploration of goals and values and education about each of the choices on the POST form.[2,17,18] In NHs that offer POST to residents, approximately two-thirds of participants reported that the form is usually completed at the time of admission. The urge to document treatment preferences quickly is understandable because family members are often present at this time to participate in a conversation, and newly admitted

residents may experience a medical crisis requiring quick decision-making, but this strategy raises questions about whether residents' values, goals, and treatment preferences are adequately explored during the busy admissions process. The next phase of this research is to evaluate the quality of POLST decisions in NHs, including exploration of the process by which the form was completed. This information will direct improvements in ACP practices by identifying modifiable factors associated with POLST discordance to guide development of individualized decision support tools and educational interventions.

A majority of NHs were able to identify a staff member who was responsible for ACP, although the knowledge level of participants about presumably job-relevant information such as the existence of a NH policy about POST was variable. Nurses or social service staff, not the physician or nurse practitioner, prepared most reported POST forms. This is consistent with prior research on POLST use in NHs and reflects, in part, the challenges physicians face in making time to engage in ACP conversations in this setting. The Medicare ACP billing codes issued in 2016 may alleviate some of these challenges, promoting best practices by providing fair compensation for the time required to engage in ACP.

CONCLUSION

The findings from this study suggest that widespread implementation of POST in the NH setting is possible with sustained grassroots efforts and without significant financial resources, but there is an ongoing need for continued education and quality improvement activities to support best practices. Future research should focus on developing educational strategies that are primed for widespread dissemination with the goal of improving the quality of POST conversations and processes.

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