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

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Abstract

Background—The Indiana Physician Orders for Scope of Treatment (POST) became available in July 2013 through the work of a grassroots coalition.

Objectives—Assess use of the Indiana POST form to record nursing home (NH) residents' treatment preferences and associated practices.

Design—Survey

Setting—Indiana

Participants—Staff responsible for advance care planning in 535 NHs

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Conflict of Interest

The authors report no financial conflicts of interest. The authors disclose the following relationships: SEH (Chair, National POLST Paradigm Task Force Research and Quality Assurance Committee; Past-Chair and Associate Director of the Indiana Patient Preferences Coalition); BJH (Executive Director, Respecting Choices).

Author Contributions

Author Contributions were as follows: Study concept and design (SEH, RLS, GAS, AMT, BJH); acquisition of subjects and/or data (SEH, ALM); analysis and interpretation of data (SEH, RLS, GAS, AMT, ALM, QT, GB, BJH), and preparation of manuscript (SEH, RLS, GAS, AMT, ALM, QT, GB, BJH).

Measurements—Survey about use of the Indiana POST, related policies, and educational activities.

Methods—NHs were contacted by phone or email. Non-responders were sent a brief postcard survey.

Results—Almost all (486/535 or 91%) Indiana NHs participated and a majority (79%) had experience with POST. Among NHs that complete POST with residents (65%), 46% reported that half or more residents had a POST form. POST was most often completed at the time of admission (68%). Only half (52%) of participants were aware of an existing facility policy regarding use of POST. A majority (80%) reported general staff education on POST. Among NHs not using POST (n = 172), reasons included unfamiliarity with the tool (23%) and a lack of facility policies (21%).

Conclusions—Almost three years following 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 outside of a potential rushed admission process.

Keywords

Nursing home; advance care planning; palliative care

The 2014 Institute of Medicine report “Dying in America” identified the need for enhanced communication in order to ensure patient 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 using standards established by the National POLST Paradigm Task Force.[1] The POLST form is used to document treatment preferences about cardiopulmonary resuscitation and other medical interventions as actionable medical orders. It is widely used in nursing homes (NHs) and frequently is used to document preferences for an enhanced focus on comfort. Patients with POLST forms receive treatments that are largely consistent with their orders and the forms are viewed as helpful by health care providers and emergency medical responders.[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 more than 20 years with the support of private philanthropy as well as state funding. This work has been part of an overall focus on improving end-of-life care following 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 created to implement the California POLST program regionally through community coalitions. Surveys of a subset found that 81% had completed a POLST with a resident less than two 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 offers an example of a state that followed this grassroots approach.[8] The Indiana Patient Preferences Coalition (IPPC) officially formed in September 2010 to develop an Indiana version of POLST. Clinical (e.g., physicians, nurses, emergency responders, social workers, 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 over 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 Indiana POLST 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 Physician Orders for Scope of Treatment (POST). Support was secured from 25 professional organizations and there was no opposing testimony. House Bill 1183 passed in the Indiana Senate (48 – 1) and House (98 – 0) with bipartisan sponsorship in both chambers. It was signed into law (Indiana Code 16-36-6) by the governor 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. Information about POST was disseminated by IPPC stakeholders 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 created by a volunteer.[10] Finally, dissemination was enhanced by 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 as a core intervention.[11,12] The Indiana POST program was endorsed by the National POLST Paradigm Task Force in May 2017.

A phone 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 the dissemination of POST in NHs throughout the entire state of Indiana three years into an unfunded, grassroots implementation effort.

Methods

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

Study Sample

The study sample consisted of all licensed NHs in the state of Indiana (n = 535). Data were provided by the person identified by the facility as primarily responsible for advance care planning, 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 email was received within two weeks, the facility was contacted by phone. The research assistant asked to speak with the person primarily responsible for advance care planning (ACP). This person was invited to participate in a brief telephone survey about ACP at their NH. If it was not possible to reach the appropriate person by phone, facility administrators were emailed a link to an online version of the same survey with a request that it be completed by the staff member primarily responsible for ACP. 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 Centers for Medicare and Medicaid Services Five-Star Quality Rating System were found online.[15]

Data Analysis

Statistical calculations and hypothesis tests were performed using SAS software.[16] Chi-squared tests and *t*-tests were used to make comparisons between NHs that offer the POST form with residents after admission (aka “POST-using”) with NHs that do not offer the POST form to residents (aka “non-POST”), and also 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 (percent minority), ownership status (non-profit, profit, government), and the Medicare Five-Star Quality Rating System (staffing, quality measures).[15]

Results

Facility and Participant Characteristics

A large majority (486/535 or 91%) of Indiana NHs participated in the study. There were no statistically significant differences between participating and non-participating NHs with respect to location (urban or rural), bed size, ownership (non-profit, profit, government), or Medicare star ratings. Data were collected primarily by phone (413) with additional responses received by email (40) for a total of 453 completed full surveys. Among NHs who

did not complete a survey by phone or email, 33 returned the short postcard survey of POST use, resulting in data about use for 486. The staff identified as responsible for advance care planning who provided facility data by phone or email self-identified as nurses (42.6% or 193/453), social service staff (35.3% or 160/453), administrators (7.9% or 36/453), or "other" such as an admissions clerk (64 or 14.1%).

Use of POST

Just over half of participants said the NH had admitted a resident with a POST form that had been completed elsewhere (50.8% or 247/486). A majority of participants reported that the NH had completed a POST form for a resident at some point after admission (64.8% or 315/486). In NHs that completed POST with residents, 46.3% of participants reported it was used for half or more of all residents, including 24.8% who report POST was used for all or nearly all residents (See Table 1). In order to assess whether these reports represented an overestimate of use, phone survey reports of use were compared with chart review data at 15 facilities that were randomly selected for participation in the parent study. In the phone survey, these NHs reported that 66.7% of residents had a POST form. In the chart review conducted up to one 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 chart validation NHs and the phone survey only NHs (see Table 2).

Overall, 20.8% (101/486) of participants reported that their NHs had no POST experience, meaning never admitting a resident with a POST form or completing POST with a resident. Data from responses to the phone and email 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 the following: Never heard of POST/unfamiliar with it (25.0%); NH policy (24.4%); don't know why their NH does not use POST (14.5%); believe that the form is not useful or necessary because of the presence of other advance care planning forms (8.1%); POST is not used in the community (6.4%); lack of staff training (4.0%); believe physician/hospital should initiate (3.5%); and that the facility was planning to implement (2.9%).

POST use was reported by NHs in 93.4% (86/92) of counties in Indiana with a majority (63% or 58/92) reporting POST use for half or more of their residents. Comparisons between POST-using and non-POST using NHs revealed that POST-using NHs had a larger bed size on average compared to the non-POST using NHs ($t = 3.64$, p-value < 0.001). All other statistical tests of differences between POST-using and non-POST using NHs were non-significant including comparisons based on urban versus rural location, percent of minority residents, non-profit versus for-profit status, and Centers for Medicare and Medicaid Star Ratings for overall, quality, and staffing.

POST Education and Procedures in NHs with POST Experience

Phone and email survey participants who completed POST with residents (n = 285) reported that the POST is typically introduced at the following times: 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 reported introducing the form at multiple points (e.g.,

decline in condition, at care plan meetings; 2.8%). 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[17] training (4.4%); role play or case-based discussions (1.8%); and video (0.4%). Participant estimates about the number of staff who had received POST education varied as follows: a few or none (16.6%); less than half (11.0%); about half (13.6%); more than half (17.7%); and all or nearly all (36.8%). A majority of NHs with POST experience have blank POST forms available (89.4% or 303/339) and a specific location for storing POST forms in the medical record (96.5% or 327/339), though only 51.9% (175/337) of participants with POST experience reported the existence of a written POST policy within their facility (see Table 3).

Discussion

Our findings suggest widespread use in Indiana NHs within 3 years of the passage of the law creating the Indiana POST program. Approximately 80% of all Indiana NHs report either 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 key stakeholder organizations that were involved in the development of the law starting in 2010 and the donated time of IPPC members as well as supportive clinicians and attorneys.[8] This effort was assisted by a strategy that included adaptation of educational materials (with permission) developed by other POLST-using states, regular coalition meetings, collaboration with the Indiana State Department of Health, and the formation of small workgroups to complete focused projects. These efforts may have also been boosted by a CMS demonstration project, OPTIMISTIC.[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]

A quarter of participants reported 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 suggest it is possible some NHs may be using POST to document code status only, although the POST form should ideally address the broader plan of care. Finally, while it is possible participants overestimated use, subsequent follow-up with buildings for on-site data collection suggest that the phone survey estimates of use were accurate or even underestimates of use.

The process of POST completion and the quality of POST conversations warrants further investigation. High quality counseling for POST involves an exploration of goals and values and education about each of the choices on the POST form.[2, 18,19] In NHs that offer POST to residents, about 2/3 of participants reported that the form is usually completed at the time of admission. The urge to document treatment preferences quickly is understandable as family are often present at this time to participate in a conversation and newly admitted residents may experience a medical crisis requiring quick decision-making. However, 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 an 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 the development of tailored decision support tools and educational interventions.

It is notable that a majority of NHs were able to identify a staff member who was responsible for ACP, though the knowledge level of participants about presumably job relevant information such as the existence of a NH policy about POST was variable. Most reported that POST forms are prepared by nursing or social services staff, not the physician or nurse practitioner. This is consistent with prior research on POLST use in the NH 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, incentivizing best practice 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. However, 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 both POST conversations and processes.

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Impact Statement

We certify that the research presented in this paper is novel. It is an evaluation of a grassroots, “real world” effort to implement an evidence-based practice into the nursing home setting statewide.

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 a resident with a POST form	247 (50.8)
NH completed a POST form for resident *after* admission	315 (64.8)
NH never admitted a resident with a POST form or completed a POST form with a resident	101 (20.8)
Estimated number of residents with POST forms in NHs that complete POST with residents (n = 315)[a]	
A few residents	87 (27.6)
Less than half of residents	74 (23.5)
About half of residents	20 (6.4)
More than half of residents	48 (15.2)
All or nearly all of residents	78 (24.8)
Unknown/missing	8 (2.5)
Reasons do not complete POST with residents in NH (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/hospital should initiate	6 (3.5)
Planning to implement use	5 (2.9)
Objection to the 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, email, and brief postcard surveys.

[b]Based on responses to telephone and email surveys only.

[c]Participants were able to select more than one reason.

Table 2

Characteristics of Phone Survey Only and Chart Review Validation Sample Nursing Homes (NH).[a]

NH Characteristic	% Phone Survey Only NHs (n = 300)	% Validation NHs (n = 15)	Significance *p*
Percent Minority[b]			0.49
A few or none	70.5	60.0	
Less than half	21.0	26.7	
About half	3.0	6.7	
More than half	3.7	6.6	
All or nearly all	0.7	0	
% Urban	32.9	20.0	0.40
% Nonprofit	39.3	62.5	0.27
Bed Size, mean	119	137	0.31
Skilled Beds, mean	101	122	0.06
Star Rating			
1	43	0	0.18
2	57	1	
3	45	3	
4	60	6	
5	81	5	

[a] Includes only nursing homes that report completing POST forms with residents.

[b] Numbers vary as not all participants provided a response to this question.

Table 3

Physician Orders for Scope of Treatment (POST) Procedures and Practices in Nursing Homes with POST Experience.[a]

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)
Less than half	30 (11.0)
About half	37 (13.6)
More than half	48 (17.7)
All or nearly all	100 (36.8)
Type of education[b]	
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 the POST form typically introduced to residents and families? (n = 285)	
At the time of admission	195 (68.4)
With decline/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 OR care plan OR admission)	8 (2.8)
When the physician decides it is time	7 (2.4)
Resident/Family Request	4 (1.4)
When the resident becomes a long-stay resident	3 (1.0)
Don’t know	1 (.04)
Written POST policy[c]	
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 the medical record for POST	327 (96.5)
In NHs with an electronic health record, POST form stored in electronic health record	140 (49.8)

[a] Based on responses to the phone and email survey (n = 339).

[b] Participants were able to select more than one response.

[c] Sample size varies due to missing data.