

Aligning POLST orders with wishes: Time to put evidence into practice

Dr. Hickman and colleagues add a critical piece to the complex puzzle of factors contributing to POLST discordance by comparing POLST orders and current treatment preferences of 36 residents and 37 surrogates in 26 Indiana nursing homes.¹ To assure quality in POLST completion, their study confirms the imperative for sound policies and practices concerning appropriate resident selection, voluntariness, and education. They emphasize that timing of sensitive POLST discussions is essential and should not be diluted in the routine process of admission. Such conclusions complement prior research confirming that high rates of concordance are achieved when preferences are carefully elicited, accurately recorded, and reviewed at the time of need, thus assuring wishes are honored.

Since its conception in Oregon 30 years ago, the goal of “Portable Orders for Life-Sustaining Treatment” (POLST) has been to assure that the wishes of patients with advanced illness or frailty are honored across settings of care.² Evidence indicates that this goal is being met. Now is the time to build on the growing foundation of strong research by creating and implementing best practices for each of the following five considerations of POLST use.

1 | POLST ORDERS MATCH MEDICAL TREATMENTS RECEIVED

In 1995, the first POLST study of 150 nursing home residents with orders for “Do Not Resuscitate and Comfort Measures Only” revealed that no resident received CPR or ICU care and only 5% died in a hospital.³ These findings attracted substantial interest and over the next few years POLST programs began in New York, Pennsylvania, Washington, West Virginia, and Wisconsin. In 2005, a study of POLST orders in Oregon, West Virginia, and Wisconsin nursing home residents confirmed a high rate of concordance between orders and treatments received.⁴ Subsequent studies from statewide registries in Oregon and

West Virginia confirmed the strong association between POLST orders for “Comfort Measures Only” and low rates of in-hospital death for persons across all settings of care.^{5,6} Finally, a recent study demonstrated that those individuals who are within 6 months of death having POLST orders limiting treatment are less likely to be admitted to the ICU. While no randomized control study has been conducted, every study comparing POLST orders with treatment received has found orders to limit treatment associated with lower rates of in-hospital death and ICU care.⁵⁻⁷

2 | SYSTEMS TO FACILITATE POLST ORDERS BEING FOUND AND HONORED

While POLST orders to limit treatment are strongly associated with honoring a patient’s wish to forego certain treatments like CPR, the forms are not always found. As a result, the rate of “wrongful life” lawsuits for failure to find and honor POLST orders is rising in some states.⁸ Also, a recent report indicated that 38% of terminally ill patients with POLST orders to limit ICU care were admitted to the unit in apparent conflict with their wishes.⁷ Some orders may have been revoked or unavailable to EMS, resulting in patients receiving full treatment before hospital arrival.

With the Washington study site not having a statewide registry, no system to retrieve POLST orders in a crisis is available. The remedy is a 24/7 statewide electronic POLST registry, with bi-directional interoperability, linked to the patient header and available instantly with a single-click.⁹

3 | INCLUDE POLST FORM SECTIONS HAVING THE GREATEST VALUE

The original versions of the Oregon POLST form had four sections: “A” regarding CPR, “B” for scope of treatment,

This editorial comments on the article by Hickman et al.

This is an open access article under the terms of the Creative Commons Attribution-NonCommercial License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited and is not used for commercial purposes.

© 2021 The Author. *Journal of the American Geriatrics Society* published by Wiley Periodicals LLC on behalf of The American Geriatrics Society.

“C” concerning antibiotics and “D” for artificial nutrition and hydration. Most early adopter states of POLST used Oregon's form as a basic template. Subsequent changes to the form were prompted by experience and research. For example, Oregon has revised its form 13 times as outlined on the Oregon POLST website policy and standards page. As multistate study data became available, the primary impact of POLST was in Section B.⁴ This scope of treatment relays information immediately about the desired care setting: remaining in the current setting if comfort can be achieved, being transported to the hospital for treatment or comfort needs, or accepting ICU care if warranted. Strong associations were found between these Section B orders and the level of treatment patients ultimately received.

Data regarding antibiotic orders were substantially less robust; one third of those with POLST orders to avoid antibiotics received them, similar to those with orders for antibiotic treatment.¹⁰ This led about half of states to remove, or for new programs to not include, the antibiotic section on their POLST form.¹¹

A high rate of internal inconsistency with feeding tube orders prompted University of Washington researchers to recommend removal of the original Section D regarding artificial nutrition and hydration.¹² Oregon removed the feeding tube section in January 2019.¹³ The value of POLST feeding tube orders has not been demonstrated to impact clinical care. Removing this section from the POLST form leads to a more focused conversation on decisions that need to be made in a crisis by EMS, thereby reducing discordance.

4 | HONORING CHANGES OF PATIENT TREATMENT PREFERENCES OVER TIME

Most people prefer to remain where they live rather than be hospitalized at the end of their lives. In Oregon, most people get their wish.¹⁴ Rates of home hospice use are high and the ability to live in assisted living or adult foster care is more available than in many other states. Potential transitions from one care setting to another emphasizes that completing an initial POLST form is the start of a process, not a one-time event. Changes in a person's health or care setting should prompt a review of their POLST form, with a new form updating treatment wishes.

In Oregon, the statewide POLST Registry is able to track order changes over time. About 11% of registrants have updated their POLST form at least once. Most changes are to limit treatment as health declines, but include changes too for some who prefer additional

treatment.¹⁵ A more recent study concurred, finding that patient wishes changed frequently as the patient's health changed and often more limits were set very near the time of death.¹⁶ Some of these changes were made orally and were made too close to the time of death for POLST orders to be revoked or revised.

Also important, a patient's underlying diagnosis has a substantial impact on the timing of POLST completion. For example, cancer patients on average complete POLST forms 7 weeks before death, while patients with Alzheimer's have POLST forms signed 52 weeks prior to dying.¹⁵ The trajectory of a patient's terminal illness impacts both the timing of a POLST conversation and optimal timing of revisiting the patient's wishes for care and treatment as health status changes.

5 | INCORRECT USE OF POLST IN THOSE WHO ARE “TOO HEALTHY”

The time has come to address policies and incentives that may fuel the overuse of POLST in those who are “too healthy.” POLST completion is an opportunity for people with advanced illness and frailty nearing the end of their lives. Figure 1 shows the substantial increase in POLST orders for “CPR” between 2010 and 2017.

For nearly three decades, the Oregon POLST Coalition has conducted extensive statewide educational programs for both healthcare professionals and the lay public and has alerted nursing homes that it is inappropriate to require POLST forms as a condition of care. It became increasingly evident that education is no match for advance care planning incentives.¹⁷

In 2017, POLST quality reports were sent to individual health systems, facilitating a comparison of practice patterns and policies of those organizations with high and low rates of “CPR” orders. This population was substantially younger than those with orders for “DNR” with a sizable spike at age 65.¹⁸ Consultation with individual health systems confirmed that some were counting (without a financial incentive) POLST forms as part of an advance care planning initiative for those age 65 and older. Others had Medicare Annual Wellness Visit templates with drop down menus that included the option of completing a POLST form. After sharing of system-specific data, “counting” of POLST forms was discontinued, and POLST was removed from the Medicare Wellness Exam templates as encouraged further by the Oregon Medical Board.¹⁹

Additionally, an order template for those being discharged to a facility for short-term rehabilitation contributed to inappropriate POLST use in those who were

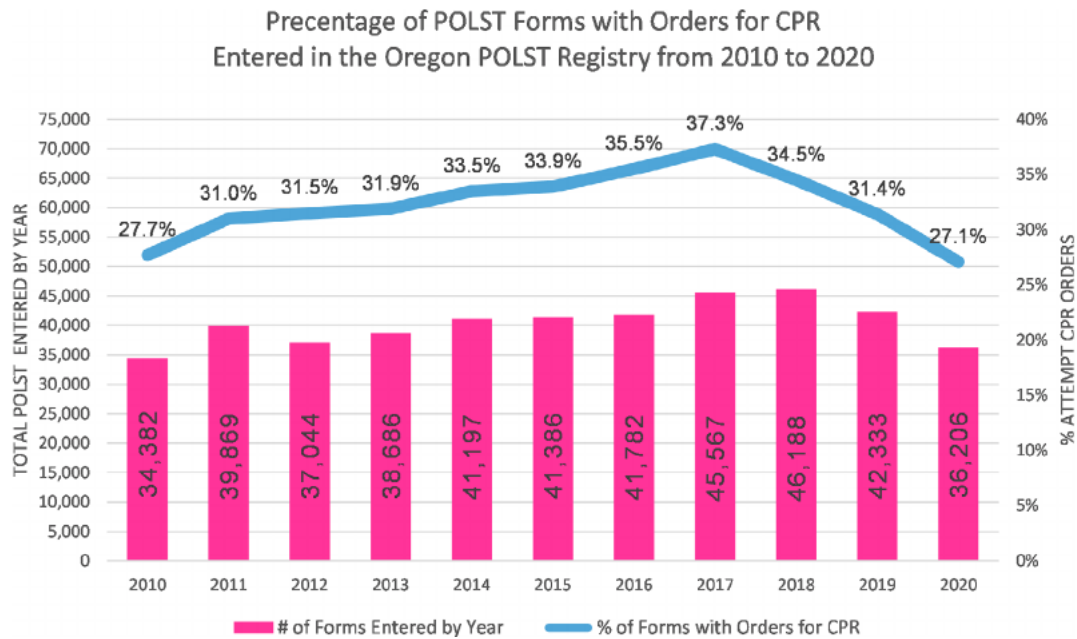


FIGURE 1 Changes in the percentage of portable orders for life-sustaining treatment (POLST) for CPR in 444,640 forms entered into the Oregon POLST Registry over an 11-year period of time between 2010 and 2020

too healthy. Conversations and documentation for these POLST orders were suboptimal.²⁰ Such patients are usually not POLST appropriate; instead, they should have facility admission orders for “CPR.” As shown in the figure, these quality interventions have been remarkably successful in decreasing the rate of “CPR” orders.

Hickman et al highlight the need to address more deeply the quality concerns of discordance between patient wishes and POLST orders. POLST programs have a long track record of applying evidence from clinical experience and research to ensure continual improvement in the care of patients. Now is no different. It is essential that studies that find discordance be used to guide POLST form revisions and implementation of policy and systems change to assure voluntary and accurate form completion with immediate retrieval of orders in the critical moments of care.

ACKNOWLEDGMENTS

CONFLICT OF INTEREST

Dr. Tolle reports a grant from The Kinsman Foundation and gifts from Bill and Karen Early.

SPONSOR'S ROLE

The Kinsman Foundation and Bill and Karen Early had no role in the preparation or content of this manuscript. The Oregon Health & Science University Center for Ethics in Health Care administers the Oregon Portable

Orders for Life-Sustaining Treatment Program. The Center for Ethics is supported by private philanthropy and does not accept gifts from healthcare industry sources.

AUTHOR CONTRIBUTIONS

Dr. Tolle assumes full responsibility for the content of this editorial acknowledging all that has been learned from others' research and from trends over time in the more than 400,000 POLST forms entered into the Oregon POLST Registry.

Susan W. Tolle MD

*Division of General Internal Medicine and Geriatrics,
Oregon Health & Science University Center for Ethics in
Health Care, Portland, Oregon*

Correspondence

Susan W. Tolle, MD, OHSU Center for Ethics in Health Care, 3181 SW Sam Jackson Park Rd. UHN-86, Portland, OR 97239.

Email: tolles@ohsu.edu

REFERENCES

- Hickman SE, Torke AM, Smith NH, et al. Reasons for discordance and concordance between POLST orders and current treatment preferences. *J Am Geriatr Soc*. 2021. <https://doi.org/10.1111/jgs.17097>

2. The Oregon POLST. (Portable Orders for Life-Sustaining Treatment) Program website. <https://oregonpolst.org/>. Accessed March 8, 2021.
3. Tolle SW, Tilden VP, Nelson CA, Dunn PM. A prospective study of the efficacy of the physician order form for life-sustaining treatment. *J Am Geriatr Soc.* 1998;46(9):1097-1102.
4. Hickman SE, Nelson CA, Perrin NA, Moss AH, Hammes BJ, Tolle SW. A comparison of methods to communicate treatment preferences in nursing facilities: traditional practices versus the physician orders for life-sustaining treatment program. *J Am Geriatr Soc.* 2010;58(7):1241-1248.
5. Fromme EK, Zive D, Schmidt TA, Cook JNB, Tolle SW. Association between physician orders for life-sustaining treatment for scope of treatment and in-hospital death in Oregon. *J Am Geriatr Soc.* 2014;62(7):1246-1251.
6. Pedraza SL, Culp S, Falkenstine EC, Moss AH. POST forms more than advance directives associated with out-of-hospital death: Insights from a State Registry. *J Pain Symptom Manage.* 2015;52(2):240-246.
7. Lee RY, Brumback LC, Sathitratanaheewin S, et al. Association of physician orders for life-sustaining treatment with ICU admission among patients hospitalized near the end of life. *JAMA.* 2020;323(10):950-960.
8. Span P. Filing suit for 'wrongful life'. NY Times (Online). <https://www.nytimes.com/2021/01/22/health/elderly-dnr-death-lawsuit.html>. Accessed March 8, 2021.
9. The Oregon POLST. (Portable Orders for Life-Sustaining Treatment) Registry website. <https://orpolstregistry.org/>. Accessed March 8, 2021.
10. Hickman SE, Nelson CA, Moss AH, Tolle SW, Perrin NA, Hammes BJ. The consistency between treatments provided to nursing facility residents and orders on the physician orders for life-sustaining treatment form. *J Am Geriatr Soc.* 2011;59(11):2091-2099.
11. Tark A, Agarwal M, Dick AW, Stone PW. Variations in physician orders for life-sustaining treatment program across the nation: environmental scan. *J Palliat Med.* 2019;22(9):1032-1038.
12. Lee RY, Modes ME, Sathitratanaheewin S, Engelberg RA, Curtis JR, Kross EK. Conflicting orders in physician orders for life-sustaining treatment forms. *J Am Geriatr Soc.* 2020;68(10):2903-2908.
13. Tolle SW, Jimenez VM, Eckstrom E. It is time to remove feeding tubes from POLST forms. *J Am Geriatr Soc.* 2019;67(3):626-628.
14. Tolle SW, Teno JM. Lessons from Oregon in embracing complexity in end-of-life care. *N Engl J Med.* 2017;376(11):1078-1082.
15. Zive DM, Fromme EK, Schmidt TA, Cook JNB, Tolle SW. Timing of POLST form completion by cause of death. *J Pain Symptom Manage.* 2015;50(5):650-658.
16. Hopping-Winn J, Mullin J, March L, Caughey M, Stern M, Jarvie J. The progression of end-of-life wishes and concordance with end-of-life care. *J Palliat Med.* 2018;21(4):541-545.
17. Sabatino C. POLST: the seven deadly sins. *Bifocal.* 2018;39(4):60-63.
18. Zive DM, Jimenez VM, Fromme EK, Tolle SW. Changes over time in the Oregon physician orders for life-sustaining treatment registry: a study of two decedent cohorts. *J Palliat Med.* 2019;22(5):500-507.
19. Oregon Medical Board Editorial Staff. Appropriate use of the Oregon POLST form. *OMB Rep.* 2020;132(1):3.
20. Hickman SE, Nelson CA, Smith-Howell E, Hammes BJ. Use of the physician orders for life-sustaining treatment program for patients being discharged from the hospital to the nursing facility. *J Palliat Med.* 2014;17(1):43-49.