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The Problems With Physician Orders for Life-Sustaining Treatment

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In 1991, physicians in Oregon developed the Physician Orders for Life-Sustaining Treatment (POLST) program to address a specific and substantive problem: due to societal defaults toward cardiopulmonary resuscitation (CPR) and life support absent orders to the contrary, many seriously ill patients receive unwanted resuscitation and hospitalization. By making physicians' orders portable, the original intent of POLST was to provide legal authority for emergency medical services personnel (ie, paramedics and emergency medical technicians) to not attempt CPR for patients who had requested that CPR be withheld. In contrast to advance directives, which provide guidance for clinicians and family members in the future if a patient were to become terminally ill or permanently unconscious, POLST enacts legally valid medical orders for current treatment.

More than 30% of patients in Oregon have an active POLST at the time of death,¹ and the National Quality Forum has identified POLST as a preferred palliative care practice.² Seventeen states have implemented POLST statewide or are considering statewide implementation, and another 28 states are in the process of developing a POLST program.³ In addition to orders to attempt or not to attempt CPR (often section A of POLST documents), all state POLST documents now govern, to some extent, the scope of medical treatment to be provided if the patient has a pulse or is breathing (often section B). Common options in section B include comfort measures (which excludes transfer to a hospital),

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limited treatment (which excludes advanced airway management), and full treatment. All 17 states with fully developed programs include orders regarding the use of mechanical ventilation and artificial nutrition and hydration. Eight of these states also include orders regarding the use of antibiotics. A review of the 28 developing state programs suggests a very similar pattern of covered interventions. In addition to this geographical expansion, POLST has expanded beyond the out-of-hospital setting to emergency departments and other settings.

Given the frequency of unwanted medical interventions provided to dying patients that gave rise to the POLST movement, concerted efforts to change the status quo are commendable. However, in this Viewpoint, we suggest that the rapid expansion of POLST programs may distract from the broader social goals of promoting informed decisions about health care options among seriously ill patients and improving the infrastructure needed to deliver high-quality care near the end of life. Given these risks and the dearth of evidence that POLST programs, as currently designed, improve care for the dying, we also suggest: (1) any further implementation of POLST programs be accompanied by a rigorous plan for evaluating their effects on processes and outcomes of care; and (2) any plans to consider POLST completion as a quality metric be halted.

Current Evidence

Many end-of-life practices lack a substantive evidence base; POLST is no exception. To date, no study has compared rates of medical intervention, in-hospital death, family bereavement, or other outcomes important to patients and their families between groups of similarly selected patients with and without POLST forms. A recent systematic review identified 23 studies examining the use of POLST, most of which entailed retrospective chart reviews conducted with convenience samples in Oregon.⁴

The limited evidence available suggests that POLST orders more commonly influence the use of the emergency interventions for which they were initially designed than the more recently incorporated clinical interventions. Where as small studies have observed high rates of consistency between with holding CPR and POLST section A DNR (do not resuscitate) orders,⁴ a study of 870 nursing home residents with POLST found that orders to with hold antibiotics were violated in 32% of cases and that orders regarding artificial nutrition were violated in 36% of cases.⁵ A chart review of 58 000 deceased patients in Oregon found that just 6% of patients with POLST orders for comfort care only died in the hospital, compared with a 44% in-hospital mortality rate among decedents with POLST orders for full treatment.¹ However, absent comparisons with patients who do not have POLST, it is unclear whether POLST improves the delivery of care that patients desire.

Threats to Patient-Centered Decision Making

Although POLST may help avert unwanted medical intervention under a narrow set of circumstances, it may actually curtail patient-centered decision making when applied more broadly. Standing physician orders dictating future treatment decisions are appropriate only if preferences are stable over time and across foreseeable clinical contexts. Patients with serious illnesses may indeed have strong and stable preferences not to receive CPR during

cardiac arrest.⁶ Similarly, patients receiving hospice care may prefer not to be intubated or to receive antibiotics under any circumstances.

However, most patients with serious illnesses who are not receiving hospice care make decisions about the desirability of interventions like intubation or antibiotics in the context of specific medical situations and in consultation with clinicians and family members. Many patients, even those in respiratory distress, can articulate clear and reasoned preferences to be intubated if a brief course of mechanical ventilation might enable them to return to their previous health state, while declining intubation if they are unlikely to ever be extubated successfully. POLST orders are not designed to accommodate this type of context-specific decision-making. Despite recommendations that POLST be revisited with changes in clinical status, there is no mechanism for assuring that this is done, particularly after acute health changes. Although the same criticism might be applied to advance directives, POLST is different because it constitutes durable medical orders for which the default response is to obey the orders, rather than to first confirm their continued relevance.

Clarity of Interpretation

Even when POLST does accurately reflect patients' wishes at the time and in the context in which it is used, health care personnel may not interpret it accurately or consistently. In the recent TRIAD VI and VII studies,^{7, 8} emergency physicians (n = 223) and out-of-hospital personnel (n = 1069) were asked to interpret sample POLST forms with different combinations of orders. Study participants were then asked to state how they would treat a patient who presented with each form. Of the 5 forms evaluated by out-of-hospital personnel, only the form specifying that clinicians should attempt CPR and provide full medical treatment yielded a consistent response among 95% of the clinicians.⁸ All other order combinations of resuscitation and medical intervention orders resulted in inconsistent interpretations. For example, only 616 (58%) of 1059 out-of-hospital personnel⁸ and 97 (51%) of 191 emergency physicians⁷ stated that they would refrain from resuscitating a patient found in cardiac arrest with a POLST specifying DNR and full medical treatment.

Furthermore, the TRIAD studies found no improvement in the consistency of form interpretation among either out-of-hospital personnel or emergency physicians who had received POLST training.^{7, 8} Thus, these studies yield 2 concerning conclusions. First, by allowing potentially confusing combinations of orders, POLST could cause patients to receive care that is either more or less aggressive than patients preferred when the documents were completed. And second, there is presently no proven way to reduce the likelihood of these unintended consequences.

Conclusions

In summary, the promise of POLST to improve care for the dying has driven substantial increases in prevalence and scope. Given the disturbing status quo in this area, the rapid embrace of such promise is understandable. However, widespread adoption of programs that lack supporting evidence and may curtail patient-centered decision making risks crowding out opportunities to test and implement the type of sustained and substantive improvements

in end-of-life care that are sorely needed. Thus, while it is reasonable for terminally ill patients hoping to avoid resuscitation or hospitalization to indicate those preferences in POLST forms, the use of more expansive documents in different populations should not be advocated unless or until the problems with POLST can be convincingly surmounted.

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