J. Randall Curtis Gordon D. Rubenfeld

"No escalation of treatment" as a routine strategy for decision-making in the ICU: con

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J. R. Curtis (X)

Division of Pulmonary and Critical Care Medicine, Harborview Medical Center, University of Washington, 359762, 325 Ninth Avenue, Seattle, WA 98104, USA

e-mail: jrc@u.washington.edu Tel.: (206) 744-3356

G. D. Rubenfeld

Interdepartmental Division of Critical Care Medicine, University of Toronto and Program in Trauma, Emergency, and Critical Care, Sunnybrook Health Sciences Center, Toronto, ON, Canada e-mail: gordon.rubenfeld@sunnybrook.ca

Bioethicists have long argued against making a distinction between the ethical acceptability of withholding versus withdrawing treatment [1]. The modern secular consensus was expressed concisely in a landmark 1983 report: "neither law nor public policy should mark a difference in moral seriousness between stopping and not starting treatment" [2]. Nevertheless, it is easier to endorse this principle than to apply it. There is no question that withdrawing feels different to families and clinicians because the temporal link between the decision and death imposes a sense of responsibility that is difficult to allay with intellectual arguments about causality [3, 4]. The concept of a "no escalation of treatment" order relies on this cognitive bias to overcome barriers to implementing a treatment plan that includes withdrawal of life-sustaining treatment. This order is used to declare that there will be

"no escalation" of any treatment, neither starting a new life-sustaining treatment nor increasing the intensity of a life-sustaining treatment currently in use. A recent retrospective review of patients who died in a medical ICU found that a stunning 30 % of deaths had a designation of "no escalation of treatment" [5]. However, we believe that routine use of such a "blanket", all-encompassing "no escalation of treatment" order is ethically confusing, if not unethical, and is often difficult to implement in a consistent and coherent way across the many ICU clinicians caring for a critically ill patient. More importantly, in most situations there are more effective alternatives.

There are scenarios when withholding some life-sustaining treatment is justified while continuing or initiating others. The most common example is the DNAR order to withhold cardiopulmonary resuscitation in the event of a cardiac arrest. CPR is the only therapy that is routinely provided without consent and existing evidence provides robust data on the likely outcomes for critically ill patients [6, 7]. Given the poor outcomes of selected critically ill patients after CPR, it often makes good sense to withhold CPR while continuing other life-sustaining treatments. There are also cases where, either because a clinician has decided that it will be ineffective or because the patient has specifically refused it, other treatments will be withheld. Intubation, which precludes communication and can be particularly uncomfortable, is often refused. In these circumstances, it is important to clarify whether intubation is declined because all life-sustaining treatments are being refused in favor of comfort measures only or whether the request is focused on the endotracheal tube. In the latter scenario, a trial of non-invasive ventilation may be indicated [8, 9].

By its very nature a "no escalation of treatment" order is ethically confusing. The primary goal of care for the majority of critically ill patients is to return them to a quality of life they would find acceptable. For some patients, the goal of care changes when it becomes clear

that it is either impossible to achieve the primary goal or when the burdens of trying to achieve this goal are unacceptable. In these cases, we shift our focus from life prolongation to dignity, comfort, and support of the family. In this context, all treatments are reconsidered in light of the new goals and treatments that do not support these goals are stopped. Consider a patient who is mechanically ventilated on vasopressors with a rising creatinine and potassium. A "no escalation of treatment" order is written. Obviously, if the patient's renal failure progresses, metabolic abnormalities will lead to a cardiac arrest. What is the goal of care in this patient? It is neither to return them to a quality of life they would find acceptable nor to focus on comfort. Therefore the order will not accomplish either of these goals well. "No escalation of treatment" orders, like "slow codes", are unethical if they are used to allow the family to retain the belief that their loved one is receiving effective treatment when, in fact, they are not [10]. Importantly, there are parallels between "no escalation of treatment" orders and a "stuttering withdrawal" approach to ICU palliation. In these cases, withdrawal of life-sustaining treatment is implemented with a series of decisions to withdraw treatments over time. Although an observational study found that stuttering withdrawal was associated with higher family satisfaction compared to situations where life-sustaining treatments were withdrawn all at once, this association does not mean that either this approach or "no escalation of treatment" orders are the best way to improve family satisfaction [11]. Rather, this finding suggests that many families need time to adjust to the realization that their loved one is dying. We believe that there are better ways to give families such time. Instead of "no escalation of treatment", we advocate the use of a "time-limited trial" [12] of life support coupled with evidence-based family conferences to align the clinical and patient goals of care [13]. This process avoids the goal confusion and, potentially worse, the goal misrepresentation that can accompany "no escalation of treatment" orders or stuttering withdrawal. During such a time-limited trial, if new treatments are considered, they should be assessed on an individual basis, considering the benefits and burdens of the treatment for this individual patient. Such consideration might result in a decision not to escalate with the specific treatment under consideration if the burdens outweigh the benefits and, more importantly, provide an opportunity to clarify the goals of care.

"No escalation of treatment" orders are difficult to interpret even when palliative medications are allowed to be escalated. For example, if a current therapy is stopped due a side effect or because it is no longer needed, is restarting this treatment an "escalation"? Are modifications to ventilator settings allowed even if desirable to promote comfort? Is a change in dose of medication an escalation of therapy? Is diagnostic testing or specialist consultation an escalation of therapy? Palliative therapy associated physiologic compromise is tolerated under the principle of double effect in patients whose goal is clearly to maximize comfort. However, for patients cared for under "no escalation of treatment" orders, how should opioid-associated hypotension be handled? The mixed goals for these patients make invoking the principle of double effect problematic. Prolonged survival after a decision to withdraw life-sustaining treatment is a challenging scenario clinicians must prepare for when the goal of care is palliation; it is even more problematic under a "no escalation of treatment" order when the clinical team and family are faced with a patient on prolonged life support where the goal of care is unclear.

We acknowledge that there are rare circumstances where a "no escalation of treatment" order may be justified. There are families who, despite efforts to resolve conflicts over the goals of care, will not consent or assent to the withdrawal of life-sustaining treatments despite the fact that the patient is actively dying. These family decisions may be based on strong religious views about withdrawal of life support. In these cases, a "no escalation of treatment" order may be preferable to providing new ineffective and burdensome treatments. However, we believe that such an approach should be a reluctant. negotiated settlement rather than a frequently used strategy. "No escalation of treatment" orders should never be offered by clinicians because they are easier or less timeconsuming to negotiate than a more explicit palliative care plan for dying critically ill patients. This option is not ethically justified because it will needlessly prolong dying and suffering. Finally, clinicians who avail themselves of this strategy should prepare for the challenging implementation issues that will arise, including anticipating a multitude of potential treatment and diagnostic options and accurately conveying the implications of "no escalation of treatment" orders for these complex future decisions across the many hand-offs that occur in the modern ICU.

Conflicts of interest The authors have no financial conflicts of interest to report.

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