
CLINICAL/PATIENT SAFETY

Use of conditional medical orders to minimize moral, ethical, and legal risk in critical care

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Abstract

Risk managers and ethicists monitor adherence to codes of conduct in the delivery of medical services and proactively participate with providers to create protocols that minimize the moral, ethical, and legal risks inherent in many commonly used medical protocols. “Code/no code” medical orders work well for patients at the extremes who always or never want to undergo a procedure, but they create troubling uncertainties for others by preventing them from expressly requesting procedures under some circumstances but not others. Obeying binary orders such as DNAR (Do Not Attempt Resuscitation) can allow deaths that a patient might want to delay or can expose patients to prolonged suffering they wish to avoid. These risks can be reduced by: (1) fully explaining the nature of proposed interventions and their possible beneficial and adverse effects in varying circumstances; and (2) replacing the traditional dichotomy with a continuum of options from always, through conditionally sometime, to never orders adapted to a range of situations and preferences. The Conditional Medical Orders (CMO) form summarizes patients’ preferences regarding resuscitation, ventilation, and artificial hydration and nutrition (ANH) is an efficient way to increase the chance that patients will undergo only the treatments they want.

INTRODUCTION

Moral, ethical, and legal risks potentially arise in all medical decisions. Morality is expressed through values and norms of behavior, with violations resulting in guilt and/or social disapproval. Codes of ethics are formulated by organizations to stipulate goals, practices, and standards of behavior, with violations subject to sanction. Laws are formulated with a high level of specificity to articulate specific duties and consequences for civil or criminal violations. In an ideal world, the three are congruent, but in reality they are subject to interpretation and may conflict, as in decisions about critical care when disputes arise over whether to allow possibly avoidable disability or death by honoring patients’ preferences or risk abrogating their right to autonomy by over-riding their preferences.^{1,2} Collaboration by providers, ethicists, and risk managers is essential to determining what should be delivered to patients that best reflects and respects their values and beliefs.³

Risk managers play a key role in reducing uncertainty about what is to be done by proactively formulating and monitoring policies that explicitly accord with moral standards and ethi-

cal and legal requirements.⁴ Patient suffering is reduced⁵ and patient safety is protected⁶ by finding systematic solutions that increase the likelihood that patients will undergo all the treatment they desire but no more.² In this way, risk managers protect both healthcare organizations and the patients they serve by promoting the highest level of care.

Risks are exacerbated by uncertainty. Imagine you are the provider in any of the clinical scenarios characterized in Table 1. Witnesses provide critical information that allows you to surmise the proximate cause of each victim’s sudden collapse and informs you that each individual’s code status is DNAR.*

What course of action would you pursue? Would you choose to honor the DNAR order and allow a potentially avoidable death that might be ethically defensible, but morally questionable? Or would you override the DNAR and resuscitate, which might be morally correct, but ethically wrong? Either decision could result in litigation.

* Optimistic DNR (Do not Resuscitate) orders have generally been replaced by more realistic DNAR (Do Not Attempt Resuscitation orders). Other acronyms are sometime used in the United States, e.g., NHDNR (Non-Hospital Do Not Resuscitate) and in other countries, e.g., NFR (Not for Resuscitation) in Australia.

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TABLE 1 Illustrative ethical conflicts in urgent care

You are a first responder—
 A 78-year-old man collapsed in his living room the evening after he saw a PCP. His wife tells you that he felt dizzy after taking a new SSRI that had been prescribed that day by a doctor who evidently was unaware that her husband was already taking two other similar drugs.

You are an ED (Emergency Department) physician—
 An 82-year-old man who is very healthy for his age created a DNAR to avoid burdening his family and society if he developed a debilitating, intractable terminal illness. While visiting his grandchildren, he complains of acute stomach pain. Taken to the ED he has a CT scan with IV contrast to evaluate intermittent R flank pain despite a clear notation in his EMR that he is allergic to the contrast agent. Although he was given prophylactic steroids by the radiologist, he immediately suffers cardiac arrest.

You are an ED physician—
 A 48-year-old woman who lives at home with her husband and children suffers from end stage renal disease due to diabetes. She is on chronic Hemodialysis after a protracted and debilitating rejection of a kidney transplant. Her Karnofsky Performance Status is 60 and is not expected to improve due to multiple complications suffered from the transplant. A heavy snowstorm prevented her from attending her last hemodialysis. Over the past few days, she experienced progressive weakness, numbness, and moderate SOB culminating in a syncopal event. Upon arrival at home her husband states that his wife still strongly wishes to live and not succumb to complications of missing one Hemodialysis session. You find classic peaked T waves and arrhythmia indicating that CPR could help. To avoid brain damage due to hypoxia, without further investigation, you must choose between honoring the DNAR signed by the patient or overriding it to accord with her husband's statement.

You are an oncologist/hematologist—
 A 77-year-old woman has primary myelofibrosis, a form of myeloproliferative neoplasm that is rapidly transforming into acute myelogenous leukemia. The transformation has caused pancytopenia that greatly increases her risk of developing fatigue, infection, and possibly fatal bleeding. She accepted platelet and red blood cell transfusions to reduce these symptoms but refused decitabine, an IV drug, after learning that it might prolong her life but not cure her illness. She suffered cardiac arrest after the second transfusion. You believe that resuscitation could restart her heart.

Each of the above scenarios exposes the limitations of binary codes, posing dilemmas that would make many providers ponder how to respond to an unpredictable iatrogenic or natural event while taking into consideration an accompanying DNAR order. Lacking the ability for discussion with the moribund patient, there is no way to know whether the individual would prefer resuscitation concordant with the community standard of care or no resuscitation concordant with the standing order. The physician might choose to resuscitate and do so successfully, only to later have the patient state they never desired such care. Or the physician might choose to respect the DNAR order and administer only comfort care, later having to answer a survivor's questions about having allowed an avoidable death. In addition, as proximate causes of pain, distress, and/or financial loss, each of the above choices could pose legal risks. Although rulings of wrongful life or death involving patients with DNAR orders are rare, damages have been awarded for violation of patients' lawful requests and the harm caused by unwanted treatments.² Moreover, even the economic and the public relations cost of successful defense against accusations can be onerous for clinicians and their employers.

Clear stipulation of patients' desires can obviate the need to make arbitrary life-or-death decisions under great pressure that can result in profound suffering. To do this, patients must be fully informed about the nature and effects of proposed interventions and their alternatives, then offered meaningful options that allow them to express preferences that conform to the nuances of medical situations and reduce the guesswork in professional action. Risk managers, ethicists, and providers can collaborate to make medical orders more informative, reducing troublesome uncertainty in situations such as these.

TRAJECTORY OF ADVANCE DIRECTIVES

Respect for autonomy is the centerpiece of the four tenets of medical ethics.⁷ Only individuals can determine what is beneficial or harmful to them, therefore all medical decisions must rest with the patients.⁸ It is the task of ethicists to bolster protection of patient autonomy by limiting instances of unwarranted substitute judgments, while risk managers strive to increase the likelihood that treatment received is concordant with treatment desired. A cornerstone to this effort is the creation of advance directives that stipulate the scope of the treatment patients want in the event they are seriously ill and lack the capacity to express their desires at the time. They are created through multifaceted advance care planning discussions that articulate peoples' values and their quality of life (QoL) goals, treatment preferences, and sometime decisions about place of death, organ donation, and autopsy among others.⁹

Advance directives are significantly underused despite many benefits, including increased compliance with patient preferences, fewer intensive care unit (ICU) and hospital admissions, and reduced use of invasive procedures. They are "legally recognized," although providers can refuse to comply for reasons of conscience or because they consider the requested procedures ill-advised or futile.¹⁰ They have been criticized since their introduction because the future is unknown when they are created, people's wishes may change over time, and prognostic uncertainty in medicine makes prediction of the trajectory of illnesses precarious.¹¹ Most relevant to this discussion, they do in fact also often lack the specificity needed for action,¹² and patients often do not understand their implications when creating them.¹³ Even if revised regularly, they will always be imperfect documents. Without them, however, providers or surrogates might, and often do, make decisions for patients that conflict with what patients would have chosen.¹⁴ Unfortunately, the wording of medical orders that operationalize advance directives often magnifies some of these problems because they are incomplete or vague enough to require substituted judgment.

Although choices tend to vary by race, ethnicity, and religion, and are evolving as medical information becomes more widely disseminated, approximately two-thirds of Americans choose "Comfort Care Only" to forego all curative and life-prolonging interventions like resuscitation when they are in the throes of a debilitating terminal illness.¹⁵ Unfortunately, some patients who requested comfort care only with its implicit DNAR did undergo CPR despite their providers' awareness of the patients'

documented preferences and strong doubt that they would survive.¹⁶ For example, one recent study found that upwards of 38% of patients in intensive care with a life-expectancy of 6 months or less were subjected to interventions such as CPR or dialysis that clearly violated their expressed wishes stated in a POLST (Physician Orders for Life Sustaining Treatment).¹⁷ Clear stipulation of patients' desires can obviate the need to make arbitrary life-or-death decisions under great pressure that can result in profound suffering. Even if aggressive treatment offered some benefit, conformed to the best available data, and was congruent with provider belief about the best care for the patient, if the procedure is not wanted by the patient, it should not have been performed.

Overtreatment of this nature could be due in part to many hard-to-change factors, including the general prevalence of nonbeneficial end-of-life treatments resulting from defensive medicine,¹⁸ variability in physicians' knowledge and beliefs about critical care, and the idiopathic trajectory of illnesses. One problem that can be overcome immediately is imprecision in medical orders. Use of conditional "Always/Sometimes/Never" orders would make patient preferences more explicit and would adapt more readily to the complexity of medical treatment.

From binary to conditional orders for resuscitation

Virtually, every advance directive in use worldwide includes the choice between accepting and rejecting CPR. Resuscitation has saved many lives, but its complexity is rarely explained, and its results are generally exaggerated by many who consider CPR simple and curative. Originally developed solely to rekindle hearts that had stopped beating, CPR was not intended to hinder the natural process of dying.¹⁹ Now, it is overused by being performed on patients who are unlikely to survive due to the failure to differentiate between patients who are dying because their hearts stop unexpectedly and patients whose hearts stop because they are dying. CPR can restore spontaneous circulation, but it does not cure underlying illnesses or necessarily improve the QoL that existed before the resuscitation. In fact, CPR is often followed by a lower QoL

Basic,²⁰ and advanced life support²¹ are widely adopted protocols for treating cardiopulmonary collapse/failure due to any cause. They are complex protocols that can include chest compressions to increase circulation, the administration of epinephrine and administration of oxygen often via an endotracheal tube or other device. They are commonly performed when patients have pulseless electrical activity, asystole, ventricular tachycardia, or fibrillation. The 100 to 120 chest compressions per minute that are 2.0 to 2.5 inches deep are traumatic, potentially resulting in rib fractures, lung contusions, hematomas, and, less frequently, life-threatening visceral and cardiac complications.^{20,21} It is generally believed that patients must accept or reject all elements of the protocol since it should never be offered as an ineffective partial code²² despite occasional mention of a Limited Attempt at Resuscitation protocol in special circumstances.²³

The likelihood that an elderly patient with multiple illnesses will survive resuscitation and be discharged from the hospital ranges from 15% to 30%.²⁴ Many factors influence the likelihood of survival, including age, gender, freedom from an underlying illness, having an initial shockable rhythm, the choice of protocols, the speed and skill with which resuscitation is administered, the setting in which treatment is delivered, and the quality of post-arrest care. Because the chance of surviving neurologically intact deteriorates by 4.4% to 8.3%, for each minute that resuscitation is delayed, depending on the cause of the cardiac problem, patients who are not resuscitated promptly may survive but suffer irreversible brain damage.²⁵

Creating the order

To enable patients to make informed decisions about resuscitation, providers have ethical and legal responsibilities to provide accurate information.²⁶ For example, in addition to being informed about the potential benefits and harms of the procedure, patients must be informed that its potential outcomes are broader than just live or die, i.e., live in the condition one finds acceptable, live in a condition that differs from what one finds acceptable in minor or major ways, or die. Patients should be told that successful resuscitation is almost always followed by a significant period of intensive care and often results in significantly reduced mental and physical function.²⁷ Moreover, patients who are older, suffered unwitnessed arrests, or have no shockable rhythm, should be told that they are unlikely to live long enough to be discharged from the hospital even if they survive CPR, and that if they do survive they are likely to undergo repeated resuscitation attempts that only prolong death and may impair their QoL

Only patients can decide: "whether or not an instant death in ventricular fibrillation is preferable to a death because of cancer in a couple of weeks."⁸ A binary choice obscures the reality of these potential multiple causes and outcomes,²⁸ increasing the risk of over- or under-treatment by oversimplifying treatment planning.

Resuscitation is the default treatment of cardiopulmonary arrest following the medical ethical principle in *dubio pro vita* (when in doubt favor life). It can be withheld only if expressly refused by the patient through a DNAR order or if it is deemed futile according to institutional protocol. DNAR orders were first proposed by the American Medical Association in 1974 as a clinical tool to reduce the suffering inflicted on many terminally ill patients by repeated resuscitation attempts that only open the door to continued suffering.³⁰ Since then, ethical guidelines for its use in end-of-life care have evolved,³¹ but the code has not been amended to stipulate acceptance of CPR for a specific period or purpose. Simple DNAR orders have been criticized because of their "yes" or "no" nature that fails to outline possible nuances in medical conditions and care that may be beneficial and meet patients' needs.²⁸ For example, strictly followed standard DNAR orders do not allow patients to be resuscitated if cardiopulmonary collapse is an iatrogenic

effect of medical treatments because simple orders ignore the possibility of reversible effects.

If the patients in Table 1 had a standard DNAR order as on the POLST, they would have been forced to make a binary choice of CPR vs. DNAR without qualification. It is likely some of these people would want resuscitation under some conditions but not others. Misapplying DNAR orders in this way could withhold medical care in circumstances in which they have a chance of surviving a cardiac or respiratory arrest^{1,2} due to unexpected events. Use of a conditional order, e.g., DNAR-X (Do Not Attempt Resuscitation—Except...) as in the Conditional Medical Order (CMO) form (Table 2) and the MOELI (Medical Order for End-of-Life Intervention),³² would have allowed these patients to choose a “middle” option. This would minimize the risk of moral, ethical, and legal wrongs by sanctioning resuscitation on the condition that their cardiopulmonary collapse was a reversible effect of an unexpected event in the opinion of the providers on the scene. Conditional orders fulfill the recommendation that physicians and patients arrive at a mutual understanding of the care a patient wishes for under various circumstances. They are also consistent with the proposed “limited aggressive therapy order” (LATO) that similarly seeks to better align patients’ choices with their goals by offering the middle option of choosing resuscitation only when the likelihood of return to spontaneous circulation is very high because the witnessed cardiopulmonary arrest resulted from medical error.³³

Although medical protocols strive for efficiency, complexity is sometimes needed to accommodate a continuum of treatment orders. DNAR-X is invaluable for some patients, but it is only one option. Patients who want to be resuscitated under all circumstances must have the chance to make their preference clear by using ACPR (Attempt Cardiopulmonary Resuscitation). Patients at the other extreme who prefer to never undergo resuscitation can make their wishes clear via the familiar DNAR. Using the CMO, providers can gain a clearer idea about patients’ preferences by seeing what they do want differentiated from options they reject.

Information about the proximate cause of cardiac arrest is often readily discoverable in hospitals, but may not be determinable in unwitnessed arrests, in which case resuscitation is required unless a prohibitive DNAR exists. However, since many out-of-hospital cardiac arrests occur at home or at work and someone requests emergency care, callers may be able to identify proximate causes. While positioning the patient and arranging the equipment for resuscitation, emergency medical providers can ask witnesses for details about the arrest. Although this adds to the pressure of the protocol, the seconds spent on determining the cause can lead to decisions more likely consistent with patient’s wishes. As an added benefit, since being uncertain about how to respond in complex situations is a common concern of prehospital providers, having the extra guidance of a conditional order can be an invaluable asset, ideally backed up by on-line guidance.³⁴

To reduce the risk of incompleteness and misunderstanding, treatment orders should be created collaboratively well in advance of a crisis so providers can be strategically informed by

TABLE 2 Conditional Medical Order (CMO) Sets for Resuscitation, Oxygenation, and Artificial Nutrition and Hydration
Cross out any that do not apply

Patient _____ Date of birth _____
 ID/Record number _____
 Patient demonstrated sufficient capacity: ____ Yes
 Patient health-literacy sufficient to understand decision. ____ Yes

As a context, my general goal is—

___ To live as long as possible regardless of the quality of my life—therefore I want all potentially helpful treatments.
 ___ To live only as long my life has the quality I desire—therefore I want to try a limited course of treatments only as long as there is a reasonable chance of my being able to live a life I value.
 ___ To die naturally—therefore I want comfort measures only to allow natural death.

Options for Conditional Resuscitation Orders

___ ACPR: DO attempt resuscitation any time I suffer cardiopulmonary collapse.
 ___ DNAR-X: DO NOT attempt resuscitation EXCEPT in the event of cardiopulmonary collapse due to an event that has reversible effects in the opinion of providers at the scene.
 ___ DNAR: DO NOT attempt resuscitation if I suffer cardiopulmonary collapse regardless of the cause.
 Comments: _____

Options for Conditional Ventilation Orders

___ AV: DO Always ventilate by any means for any duration recommended
 ___ IMV-C: Use invasive ventilation methods ONLY on the conditions that it is needed for resuscitation or for the treatment of an acute event with reversible effects. OTHERWISE use non-invasive ventilation as needed.
 ___ DNI: DO NOT ventilate if the sole purpose is to delay my death from an irreversible terminal illness. Provide oxygen via noninvasive canula only for comfort.
 Comments: _____

Options for Conditional Artificial Nutrition and Hydration Orders

___ AANH: ALWAYS administer ANH by any method for any duration as recommended.
 ___ ANH-X: DO NOT administer ANH EXCEPT for a short time to achieve a specific goal.
 ___ DNANH: DO NOT administer ANH. Provide nutrition and hydration orally only, accepting my refusal of either or both.

Additional option that can be chosen along with ANH-X or DNANH

___ VCED: Accept my voluntary cessation of eating and drinking, making me as comfortable as possible while awaiting death. Do not attempt to provide food or liquid orally other than ice chips or lozenge for comfort.
 Comments: _____

Physician, RN, ARNP, or PA-C _____ Date _____
 Patient _____ Date _____
 Surrogate _____ Date _____
 I hold blameless any provider who honors this order in good faith
 YES ____ Initial _____ NO ____ Initial _____

patients' values and goals in contrast to decisions made under pressure that are likely to be tactical and driven by the patients' status. Beginning treatment planning by discussing goals that hinge on patients' desired general QoL provides a clinical context and legal foundation for patients' choices, while making the process less impersonal and mechanistic. Identifying inconsistencies between general goals and treatment options also affords an opportunity to double-check capacity and health literacy, e.g., ACPR is incompatible with comfort care only, just as DNAR is incompatible with full code.

Because successful resuscitation is a gateway to subsequent treatment, complete disclosure requires discussion of the probable sequence of procedures. For example, resuscitation might be declined if patients are unwilling to undergo prolonged invasive ventilation or ANH if these are probable next steps. This is important because it is often easier to decide not to initiate a procedure than to withdraw it once it is begun.

Including orders for ventilation and ANH, the CMO also serves as a reminder that the DNAR is not a Do Not Treat order that precludes other procedures unless specifically refused. Two of us (GRB and TEL) often have had to convince ICU staff that patients with DNAR orders had the right to the intensity of the care most commonly offered in the ICU.

The CMO operationalizes patients' preferences in a brief form that facilitates quick decisions which are important in community settings and preoperative situations.³⁵ Following adequate discussion of their potential benefits and harms, additional orders can also be added for this purpose, e.g., Do-Not-Hospitalize or Do-Not Operate–Unless. This is consistent with the recommendation that a medical order should clearly outline what treatments are appropriate for a patient, and those that should be withheld. In addition, the "Comments" section following each order allows for elaboration. For example, one of our patients added "No CPR if survival makes it likely that I will spend the rest of my life attached to machines" and another added "I am afraid of dying, not death. If I have died for any reason, please do not force me to undergo that trauma again."

Medical orders must be signed by a physician, nurse, advance registered nurse practitioner (ARNP), or certified physician assistant, (PA-C), validated by the patient and/or surrogate and entered in patients' charts along with documentation of the discussion. In addition, the "hold blameless" line has been added because many providers are wary about being sued for honoring patients' requests that providers not deliver common treatments. Inclusion of the phrase "in opinion of the providers" furthers this protection by having patients acknowledge the fact that in limited circumstances, they trust providers to make decisions that are in their best interest. While nothing can absolutely preclude the risk of allegations of malpractice, these phrases somewhat reduce the likelihood of specious litigation when providers make good faith efforts to respect patients' wishes.

As an important final point, since state and institutional requirements vary,³⁶ clinicians should verify that the statutes and procedures in the jurisdictions in which they practice allow use of a medical-order variant such as the CMO. If not, risk managers could contribute to efforts to make the appropriate regulatory changes.

CONDITIONAL ORDERS FOR VENTILATION

As is true for resuscitation, the complexity of ventilation and its effects are often not well understood. Oxygen can be delivered in several ways, increasing in invasiveness.³⁶

Invasive mechanical ventilation (IMV) includes extracorporeal membrane oxygenation (ECMO), and ventilation via placement of a secured airway device. Patients may receive IMV during surgery or post-op recovery, or to improve blood-oxygen level during the acute stage of pulmonary illness. Patients undergoing this procedure short-term often suffer various problems including inability to speak, unremitting dry mouth, and the need for restraint and/or sedation to prevent self-extubation. Long-term IMV adds the risk of additional harms, including tracheal and lung injury, pressure ulcers, and musculoskeletal problems from lying in the same position for weeks to years, and problems in any organs, many of which are irreversible following extubation.³⁷ In addition, some patients may never recover to the point that the endotracheal tube can be removed, thereby spending the end of their lives sedated and possibly uncomfortable.

Noninvasive ventilation (NIV) includes oxygen delivery systems such as nasal cannulas, CPAP (continuous positive airway pressure), and BiPAP (bilevel positive airway pressure) devices. NIV is commonly used short-term to overcome low blood-oxygen levels due to multiple causes, and on occasion can make invasive mechanical ventilation unnecessary. Patients undergoing this procedure short-term may suffer various problems nasal dryness, skin irritation, epistaxis, and agitation.

Some patients will always want invasive procedures (AV). Others may not want to risk ending their lives when they are unable to speak or think clearly due to ventilation and sedation. But they may indicate their acceptance of invasive mechanical ventilation briefly on the condition that they are undergoing or recovering from surgery, or to improve blood-oxygen level during the acute stage of pulmonary illness by choosing IMV-C. Others may refuse IMV (DNI) but chose oxygen via canula to facilitate a more comfortable and natural death.

CONDITIONAL ORDERS FOR ARTIFICIAL NUTRITION AND HYDRATION

There are significant inadequacies in the typical informed-consent process for ANH, in part because many physicians who consider the feeding tube the standard of care for critically and chronically ill patients are unaware of its limitations. ANH is a collection of procedures that provides for the delivery of fluids and/or nutrition to patients who are incapable, for whatever reason, of taking something by mouth and swallowing it.^{38,39} Enteral ANH delivers nutrients to the gastrointestinal tract either via a nasogastric tube or a tube placed surgically, endoscopically, or radiologically in the stomach or proximal small intestine. Parenteral ANH delivers substances via a catheter placed in either a peripheral or central vein. ANH can be used short-term to promote survival in patients in the acute phase

of stroke or head injury and those receiving short-term critical care. It is used long-term to prolong survival in patients in a permanent vegetative state, extreme short-bowel syndrome, or amyotrophic lateral sclerosis. The benefits of enteral ANH come with considerable treatment burden including sinus and ear infections, worsening dysphagia, tube dislodgment and clogging, insertion site infection, aspiration, agitation, and possible necessary sedation to prevent tube removal due to discomfort.

ANH was intended to be used briefly until a patient with a reversible problem regains the ability to eat and drink normally. However, ANH is often over-used for long periods even though its harms may outweigh its benefits. Once begun, it may be difficult to terminate the procedures for emotional and legal reasons.⁴⁰ It cannot be assumed that patients want long-term ANH unless they are fully informed about its potential mixed effects. Multiple choices are needed for patient preferences. Those accepting all forms of ANH always can make this request via an AANH (Always Artificial Nutrition and Hydration). Patients who want the procedure for a limited time to achieve a specific purpose can choose ANH-X. Finally, those who never want it can express this preference with a DNANH (Do Not Artificially [provide] Nutrition and Hydration).

As their suffering increases, some patients will accept oral feeding and drinking while others may reach a point at which they wish to voluntarily cease all eating and drinking (VCED).⁴¹ Unlike other orders in which only one choice is possible, patients who choose ANH-X or DNANH can add VCED to their ANH conditional order set. Although this practice is now more widely accepted, risk managers may be called upon to help resolve conflicts arising from institutions' concern about liability for failing to feed patients and their concern about the risk of being accused of battery when they provide sustenance in conflict with patients' wishes.⁴²

SHARED DECISION-MAKING

Advance care planning has progressed from checking boxes on forms to communication-based legal interactions producing medical orders that are transactional documents stipulating duties, the breach of which can lead to tort litigation.⁴³ It utilizes shared decision-making⁴⁴ in which providers use motivational interviewing and intentional questioning to help patients personalize their treatment orders. Focusing the discussions on the CMO creates an efficient structure. In the experience of one of us (RBS) who has conducted more than 75 Advanced Care Planning (ACP) workshops, patients participate much more willingly when offered the options in conditional orders that personalize their potential care versus simplistic black-and-white binary orders that many find impersonal and intimidating. By increasing the odds that patients will get the care they want, the CMO also reinforces providers' confidence that their orders accurately reflect their patients' preferences.

A major ethical risk arises when patients fail to understand the documents they signed. Therefore, it is recommended that they should be asked to explain their requests in their own words.⁶ The three-part consent form for participation in research⁴⁶

is one model for doing so. Potential research participants are offered a description of the study protocol, asked whether they agree to participate, and then asked to describe in their own words what they agreed to do and how it might affect them. This makes creating CMOs a four-step procedure: (1) patients are offered detailed descriptions of proposed treatment alternatives for their condition including their possible effects; (2) they are asked to describe the procedure in their own terms; (3) they are asked to make a choice; and (4) they are asked to explain the logic of their decision. An outline for one approach to this discussion is presented in Appendix 1. Charting this discussion goes a long way toward establishing that the decision was informed, minimizing the risk of one cause of legal action.

Time pressure may be the greatest challenge to having these discussions. Careful planning and use of prompt lists⁴⁷ pitched to low, medium, and high levels of sophistication are also extremely helpful. A prompt list for the CMOs is presented in Appendix 2. Decision aids are also helpful as shown by meta-analysis of 105 studies finding that their use increased patients' knowledge and accuracy of risk perceptions, led to increased congruence between patients' values and the treatment they requested, increased patients' sense of self-efficacy, and improved the quality of patient-clinician communication, while prolonging the discussion by an average of only 2.6 minutes.⁴⁸ In addition, goals were discussed and orders created in an average of 10 minutes in an Australian ED.⁴⁹ In the US, the Centers for Medicare and Medicaid Services (CMS) created Current Procedural Terminology (CPT), i.e., billing codes), 99497 and 99498 to allow 30 and 40 minutes respectively for these discussions.⁵⁰ It seems ethically important for providers to arrange their schedules to meet this need, but if that is truly impossible, trained facilitators can meet with patients to prepare the documents for provider signature.

Although it is more time-consuming, if the patient agrees, including surrogates and selected significant others in these discussions can ease patient stress and increase understanding of the patient's wishes, thereby minimizing conflict when time is of the essence in the ED, ICU, or any other clinical setting.

CONCLUSION

Patients seek the maximum possible QoL in conjunction with the lowest possible level of physical, psychological, and/or spiritual suffering caused by treatments and their effects. At present, patients must use binary codes to express their preferences for care during catastrophic medical events when they cannot communicate their choices. Unfortunately, these codes create uncertainty in some critical situations. When patients' preferences are unclear, providers may cause harm by superimposing their own values and judgments that can result in too much or too little intervention from the patient's perspective. Providers who consider death to be the worst form of suffering may use multiple interventions to prolong life despite some patients' wish to avoid painful, invasive treatments that do not improve their QoL. This is a particular concern when providers worry about wrongful death litigation. Conversely, providers who consider patients'

preferences as binding may allow avoidable deaths by foregoing treatments that could restore their functioning by overcoming reversible trauma with minimal to no lasting adverse effect. Both groups make good faith responses to imprecise orders, but their diverging paths can create moral, ethical, and legal risks.

The CMO allows patients to stipulate their preferences by replacing the binary system of “always or never” with a range of choices that include use of resuscitation, ventilation, and ANH “always, sometime, or never.” The order set offers a continuum of possibilities and can be expanded to encompass additional procedures at patients’ request. This allows the order to be more responsive to the complexities of medical care and reduces providers’ uncertainty about what patients really want. Risk managers can play a key role by championing adoption CMO and training providers in its use in their organizations. Doing so can safeguard patient autonomy, and reduce patient suffering, and minimize troublesome moral and ethical transgressions and legal liability.

REFERENCES

- Casarett S, Rose LO. Overriding a patient’s refusal of treatment after an iatrogenic complication. *N Engl J Med*. 1997;336(26):1908-1910.
- Banja J, Sumler M. Overriding advance directives: a 20-year legal and ethical review. *J Healthc Risk Manage*. 2019;39(2):11-18. <https://doi.org/10.1002/jhrm.21388>
- Sine DM, Sharpe VA. Ethics, risk, and patient-centered care: how collaboration between clinical ethicists and risk management leads to respectful patient care. *J Healthc Risk Manage*. 2011;31(1):31-37. <https://doi.org/10.1002/jhrm.20077>
- Youngberg BJ. Meeting the challenges of patient safety through the design of a new risk management process. *J Healthc Risk Manage*. 2001;21(4): 5-11
- Card AJ, Klein VR. A new frontier in healthcare risk management: working to reduce avoidable patient suffering. *J Healthc Risk Manage*. 2016;35(3):31-37. <https://doi.org/10.1002/jhrm.21207>
- Bunting RF, Benton J, Morgan WD. Practical risk management principles for physicians. *J Healthc Risk Manage*. 1998; 19(4):29-59.
- Beauchamp TL Childress JF. *Principles of medical ethics*. 8th ed. New York: Oxford University Press; 2019.
- Bertilsson E., Semark B., Schildmeijer K. et al. Usage of do-not-attempt-to-resuscitate orders in a Swedish community hospital – patient involvement, documentation and compliance. *BMC Med Ethics* 2020;21:67–72. <https://doi.org/10.1186/s12910-020-00510-5>
- Six Steps Living Will. www.6stepslivingwill.org. Accessed July 25, 2021.
- American Bar Association. Myths and facts about healthcare directives. https://www.americanbar.org/groups/law_aging/publications/bifocal/vol_37/issue_1_october2015/myths_and_facts_advance_directives/#:~:text=Advance%20directives%20are%20legally%20binding,consider%20your%20wishes%20medically%20inappropriate
- SUPPORT Principal Investigators. A controlled trial to improve care for seriously ill hospitalized patients. The study to understand prognoses and preferences for outcomes and risks of treatments (SUPPORT). *JAMA*. Nov 22–29 1995;274(20):1591-1598.
- Simcic JJ. Can we improve advance directives? *Ann Int Med*. 2008;148:405.
- Perkins HS. In response. *Ann Int Med*. 2007;148(5):406.
- Shalowitz DI, Garrett-Mar E, Wendler D. The accuracy of surrogate decision makers: a systematic review. *Arch Intern Med*. 2006;166(5):493-497. <https://doi.org/10.1001/archinte.166.5.493>.
- Pew Research Center. New survey examines public’s views on end-of-life medical treatments. <https://www.pewforum.org/2013/11/21/new-survey-examines-publics-views-on-end-of-life-medical-treatments/>. Accessed July 25, 2021.
- Marik PE, Zaloga GP. CPR in terminally ill patient. *Resus*. 2001;49:99-103.
- Lee RU, Brunback LC, Sathitranacheewin’s, et al. Association of Physician Orders for life-Sustaining treatment with ICU admission among patients hospitalized at the end of life. *JAMA*. 2020;323(10):950-960. <https://doi.org/10.1001/jama.2019.22523>
- Studdert DM, Mello MM, Sage VM et al. Defensive medicine among high-risk specialist physicians in a volatile malpractice environment. *JAMA*. 2005;293(21):2609-2617. <https://doi.org/10.1001/jama.2019.22523>
- Hurt R. Modern cardiopulmonary resuscitation—not so new after all. *J Roy Soc Med*. 2005;98:327-331. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1168923/pdf/00980327.pdf>
- Pozner CN Adult basic life support (BLS) for health care providers. In: UpToDate, Post TW (Ed), UpToDate, Waltham, MA, (Accessed July 26, 2021)
- Pozner CN Advanced cardiac life-support (ACLS) in adults. UpToDate. 2021. In: UpToDate, Post TW (Ed), UpToDate, Waltham, MA, (Accessed July 26, 2021)
- Berger JT. Ethical challenges of partial do-not-resuscitate (DNR) orders. *Arch Intern Med*. 2003;163(19):2270-2275. <https://doi.org/10.1001/archinte.163.19.2270>
- American Society of Anesthesiologists. Ethical guidelines for the anesthesia care of patients with Do-Not Resuscitate orders or other directives that limit treatment. 2018. <file:///Users/rbstuart/Desktop/ethical-guidelines-for-the-anesthesia-care-of-patients.pdf>. Accessed July 26, 2021.
- Podrid PJ Prognosis and outcomes following sudden cardiac arrest in adults. In: UpToDate, Post TW (Ed), UpToDate, Waltham, MA, (Accessed July 26, 2021)
- Hara R, Hayashi KH Nikoso S, et al. Different impacts of time from collapse to first cardiopulmonary resuscitation on outcomes after witnessed out-of-hospital cardiac arrest in adults. *Circ Cardiovas Qual Outc*. 2015;8(3):277-284. <https://doi.org/10.1161/CIRCOUTCOMES.115.001864>
- West JC, Allman CJ. Case law update. *J Healthc Risk Manage*. 2021;41(1):48-54. <https://doi.org/10.1002/jhm.21482>
- Fritz Z, Fuld J. Ethical issues surrounding do not attempt resuscitation orders: decisions, discussions, and deleterious effects. *J Med Ethics*, 2010;36:593-597. <https://doi.org/10.1136/jme.2010.035725>
- Ibrahim W H. Recent advances and controversies in adult cardiopulmonary resuscitation. *Postgrad Med*. 2007;83(984): 649–654. <https://doi.org/10.1136/pgmj.2007.057133>
- Vanpee D, Swine C. Scale of levels of care vs. DNR orders. *J Med Ethics*. 2004;30:351-352. <https://doi.org/10.1136/jme.2003.002436>
- American Heart Association. 1974. “Standards and Guidelines for Cardiopulmonary Resuscitation (CPR) and Emergency Cardiac Care (ECC), V. MediColegal Considerations and Recommendations.” *JAMA*. 227: S864–S866.
- American Medical Association. Orders not to attempt resuscitation (DNAR) Code of Medica ethics Opinion 5.4 <https://www.ama-assn.org/print/pdf/node/5426>. Accessed August 7, 2021.
- Stuart RB, Thielke S. Standardizing protection for patients’ rights: from POLSLT to MOELI (Medical Orders for End-of-life Intervention). *J Amer Med Dir Assoc*, 2017;18(9):741-745.
- Choudhry NK, Choudhry E, Singer PA. CPR for patients labeled DNR: the role of the limited aggressive therapy order. *Ann Intern Med*. 2003;138:65-68.
- Waldrop DP, Waldrop MR, McGinley JM, et al. Prehospital providers’ perspectives about online medical direction in emergency end-of-life decision-making. *Prehosp Emerg Care*. 2021. <https://doi.org/10.1080/10903127.2020.1863532>
- Kim C, Keneally R. The Do Not Resuscitate (DNR) order in the preoperative setting: practical considerations. *Cur Opin Anesth*. 2021;34:141-144. <https://doi.org/10.1097/ACO.0000000000000974>
- Sullivan DR, Kim H, Gozalo PL, Bunker J, Teno JM. Trends in noninvasive and invasive mechanical ventilation among Medicare beneficiaries at the end of life. *JAMA Intern Med*. Published online 19 October, 2020. <https://doi.org/10.1001/jamainternmed.2020.5640>

37. Hanidziar D, Bittner EA. Sedation of mechanically ventilated COVID-19 patients: challenges and special considerations. *Anesth Analg*. 2020. <https://doi.org/10.1213/ANE.0000000000004887>
38. Arenella C. Artificial nutrition and hydration at the end of life: beneficial or harmful. American Hospice Organization. <https://americanhospice.org/caregiving/artificial-nutrition-and-hydration-at-the-end-of-life-beneficial-or-harmful/>. Accessed July 21, 2021.
39. Goldsmith T & Cohen AK Swallowing disorders and aspiration in palliative care. Assessment and strategies for management. In: UpToDate, Post TW (Ed), UpToDate, Waltham, MA, (Accessed July 26, 2021)
40. Danis M Stopping nutrition and hydration at the end of life. In: UpToDate, Post TW (Ed), UpToDate, Waltham, MA, (Accessed July 26, 2021)
41. Quill TE, Back AL, Block SD. Responding to patients requesting physician-assisted death. *JAMA*. 2016;315(3):245-246. <https://doi.org/10.1001/jama.2015.16210>
42. Pope T Legal aspects in palliative and end-of-life care in the United States. In: UpToDate, Post TW (Ed), UpToDate, Waltham, MA, (Accessed July 26, 2021)
43. Monico EP, Calise A, Colabro J. Torts to contracts? Moving from informed consent to shared decision-making. *J Healthc Risk Manage*. 2009; 28(4):7-12.
44. Agency for Healthcare Research and Quality. Shared decision-making. The CAHPS Ambulatory Care Improvement guide: Practical strategies for improving patient experience. <https://www.ahrq.gov/sites/default/files/wysiwyg/cahps/quality-improvement/improvement-guide/6-strategies-for-improving-communication/cahps-strategy-section-6-i.pdf>. Accessed August 10, 2021.
45. Kurin M, Mirarchi F. The living will: patients should be informed of the risks. *J Healthc Risk Manag*. 2021;1-9. <https://doi.org/10.1002/jhrm.21459>
46. Stuart, R. B. A behavioral test of informed consent to participate in research. *Behav Ther*. 1978;9:7382.
47. Walczak A, Tattersall MHN, A question prompt list for patients with advanced cancer in the final year of life: development and cross validation. *Pall Med*. 2013. <https://doi.org/10.1177/0269216313483659>
48. Stacey D, Le'gare F, Lewis K, et al. Decision aids for patients facing health treatment or screening decisions. *Cochrane Data Base of Systematic Reviews*. 2017. <https://doi.org/10.1002/14651858.CD001431.pub5>. Accessed July 1, 2021.
49. Hanning J, Walker KJ, Horrigan D, et al. Review article: goals-of-care discussions for adult patients nearing end of life in emergency departments: a systematic review. *Emerg Med Austr*. 2019;31:525-532.
50. CMS. Frequently asked questions about billing the physician fee schedule for advance care planning. <https://www.cms.gov/medicare/medicare-fee-for-service-payment/physicianfeesched/downloads/faq-advance-care-planning.pdf>. Accessed August 4, 2021.

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APPENDIX 1

Protocol for discussion of patients' resuscitation and intubation preferences

As a general guideline: (1) elicit patient's goals (2) explain the course of the current illness and the likely outcome of treatment options in language patient understands (3) elicit patient's action preferences (4) create CMO (5) enter orders in EMR, and print forms for out-of-hospital use. Do not rush discussion, but set time frame in advance when necessary. *Complete the CMO for yourself to learn some issues that must be resolved in making these decisions.*

Patient name: Age: Gender: Primary provider:	Date:
If possible, sit at eye level with the patient, introduce yourself, stating your role, and verify patient's name. Address patient formally, i.e., Ms, Mr, Dr, etc. and not by first name.	When possible, prepare by learning: Primary illness:
Establish parameters for this discussion-e.g. "We are here to discuss your preferences for critical care". If time constrained, "I wish we had more time, but I must meet my next patient in XX minutes and I do not like to keep any patients waiting".	Comorbidities
Ask if patient is willing to allow surrogate to participate. If so, invite participation.	Name, Contact info.
If this is a first contact, ask patient to tell you a few things that will help you understand him/her as a person. If second or later contact, ask if there are any changes patient thinks you should know about. Thank patient for being forthcoming.	Personal details
Ask if patient has an advance directive, POLST, MOELI, or other form. If so, ask whether the form reflects their current preferences and whether it would be helpful to review preferences concerning resuscitation, ventilation, ANH	__POLST ____Date __MOELI ____Date Full tx __Limited tx __ Comfort __
"Please tell me your major goal, e.g longevity vs. quality of life, avoid pain or loss of independence, and other concerns, e.g. religion/spirituality etc." "To be sure that I understand you, I would like to tell you what I heard. Is this accurate? Is there anything else you would like me to know?"	__Longevity __QoL __Pain __Religion/Spirituality __Autonomy __Treatment Burden __Other:
"I would like to explain the meaning of some of the terms we will be using. Pitching the discussion to the patient's apparent level of health literacy, Define the terms "full treatment", "limited treatment" and "comfort-care only" and explain their meaning. Then ask the patient to state how he/she defines the terms. Correct any misunderstanding. Then do the same for CPR, ventilation, and ANH.	Concerns? Inaccuracies? Full treatment Limited treatment Comfort care only CPR Ventilation ANH
"Please look at this CMO which lays out the decisions we are about to make." Begin with general goals and enter patient's choice. Then, using the Prompt List in Appendix 2 as a guide, describe CPR, ventilation, and ANH including potential benefits and harms again pitching the discussion to patient's apparent level of understanding. Add that "Medical language is hard for most people to understand so to understand so: please tell me if any of the terms are unfamiliar to you".	Concerns:
Given this information, what actions are you considering. Discuss patient's reasoning and suggest possible mitigation of any negatives anticipated. Assess patient's capacity to understand this discussion.	Concerns
Now the hard part: Would you like each always? Sometime—and if so under what conditions? or never? List contingencies if any. Repeat the patient's preferences, then explain the likely outcome of each. If patient's preferences conflict with standard medical practice, discuss the implications. Once you are confident that the patient understands, complete the CMO, sign it, and ask patient and, if present, the surrogate to sign.	: __ACPR __DNAR-X __DNAR __AV __IVM-C __DNI __AANH __ANH-X __DNANH __VCED
Ask if the patient would like you to create and enter the orders, with the assurance that they can be changed as the patient wishes as long as she/he has the capacity to do so. If possible, offer to give the patient a copy of the signed CMO.	Where entered: EMR this institution Other
If the surrogate is not present, ask the patient who might speak for him/her if he/she don't have the capacity to speak for him/herself and suggest that the patient describe their goals and preferences to verify that they are understood and will be respected. Encourage patient to share copies of these documents with surrogates and significant others.	

APPENDIX 2
Prompts for Discussing Resuscitation, Oxygenation, ANH

Procedure/elements	Benefits	Harms
<p>Resuscitation</p> <ul style="list-style-type: none"> • 100-120 chest compressions/minute 2.0 to 2.5 inches deep <p>As needed:</p> <ul style="list-style-type: none"> • Electric shock to control fibrillation- • Injection of epinephrine, • Oxygen via endotracheal tube or another device 	<ul style="list-style-type: none"> • Can restore spontaneous circulation depending on co-morbidity... • and prior condition • 15-30% chance of survival until hospital discharge 	<p><u>Possible treatment burden</u></p> <ul style="list-style-type: none"> • Rib fractures • Lung contusions • Hematomas • Visceral and/or cardiac complications <p><u>Possible long-term harms</u></p> <ul style="list-style-type: none"> • Brain damage if not begun quickly or poorly delivered • Survival may require other invasive interventions
<p>Oxygenation</p> <p><u>Routine options</u></p> <ul style="list-style-type: none"> • Nasal canula • Continuous airway pressure • (CPAP) • Bilevel positive airway Pressure (BiPAP) <p><u>More invasive options</u></p> <ul style="list-style-type: none"> • Extracorporeal membrane Oxygenation (ECMO) • Intratracheal mechanical ventilation (ITV) 	<ul style="list-style-type: none"> • Maintain oxygen access during and/or following surgery • Maintain blood/oxygen saturation during acute pulmonary illness 	<p><u>Possible treatment burden</u></p> <ul style="list-style-type: none"> • Dry mouth • Inability to speak • Pain requiring sedation <p><u>Possible long-term harms</u></p> <ul style="list-style-type: none"> • Pressure ulcers • Musculoskeletal problems • Irreversible organ damage • Inability to be extubated
<p>Artificial Nutrition and Hydration</p> <ul style="list-style-type: none"> • Nasogastric tube • Catheter placed in central or peripheral vein • Tube inserted into stomach or small intestine surgically, endoscopically, or radiologically 	<p>Nutrients and fluids short- or long-term-</p> <ul style="list-style-type: none"> • Following stroke or other head injury • Permanent vegetative state • Extreme short bowel syndrome • Amyotrophic lateral sclerosis 	<p><u>Possible treatment burden</u></p> <ul style="list-style-type: none"> • Sinus and ear infections • Dysphagia • Tube dislodgement and clogging • Insertion site infection • Aspiration • Agitation • Poor nutrition • Prolonged sedation to prevent tube removal due to discomfort
<p>Voluntary cessation of eating and drinking</p> <ul style="list-style-type: none"> • Termination of all forms of tube- and hand-delivered nourishment • Acceptance of only ice chips and lozenges for comfort 	<ul style="list-style-type: none"> • May reduce extent or duration of suffering • Continued sublingual, intranasal, subcutaneous, intramuscular or, if needed, intravenous medication for comfort 	<ul style="list-style-type: none"> • Thirst, dry mouth, and possible delirium
<p>Patient accurately describes resuscitation ___ Yes</p> <p>Understands its place in likely sequence of treatments ___ Yes</p> <p>Conditions for use:</p>	<p>Patient accurately describes ventilation* ___ Yes</p> <p>Understands its place in likely sequence of treatments ___ Yes</p> <p>Conditions for use:</p>	<p>Patient accurately describes ANH ___ Yes</p> <p>Understands its place in likely sequence of treatments ___ Yes</p> <p>Conditions for use:</p>